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ROYAL ONTARIO MUSEUM OF ZOOLOGY AND PALAEOLOGY

No. 41

CHECK-LIST OF THE AMPHIBIANS AND REPTILES
OF CANADA AND ALASKA

By

E. B. S. Logier and G. C. Toner

TORONTO
AUGUST 31, 1955

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INTRODUCTION

THE NEED for a check-list of the amphibians and reptiles occurring north of the Canada-United States border has been apparent for a long time. In the United States the ranges of these animals have in most cases been well worked out and defined. In Canada there have been few students of herpetology and these, for the most part, have been able to devote only a small portion of their time to the subject. However, a large amount of distributional data has accumulated, much from scattered published sources, but most from the collections and records in the Royal Ontario Museum of Zoology and Palaeontology.

Most of our amphibian and reptilian fauna is in the nature of "overflow" or northward extension of forms occurring in the United States, but the northern extremities of their ranges are often ill-defined in United States publications and cited merely as "Canada" or "southern Canada," while some forms ranging into Canada are not so listed.

The fact that the amphibians and reptiles of Canada are not generally considered to be of great economic, or (aside from the bullfrog) of any commercial, importance has, no doubt, much bearing on the case. The ability of a people to appraise scientific values apart from economic or commercial applications is one index of its cultural level, so the situation that exists with regard to herpetology in Canada does not flatter us. For most of our knowledge of the lives and habits of our own fauna we are indebted to our neighbours to the south, so that if such knowledge is incomplete or inaccurate in so far as it pertains to conditions in Canada, we have only ourselves to reproach.

The present work was started after the outbreak of World War II, and at a time when obstacles might be expected. They did arise, and not all of a nature foreseen, thus publication was delayed. This, however, was a blessing in disguise, since considerably more data have become available in the time interval, and the authors have been able to give more mature consideration to both their selection and the form of presentation. In spite of the obvious gaps in such distributional data, it seems desirable to put on record the information available now, rather than wait indefinitely for the perfection "at the end of the rainbow." It will be many years before the necessary faunal work will have been done in much of the vast area covered by this check-list, and will certainly not be within the lifetime of the present authors. The range limits, especially the northern ones, indicated in this list are in many cases provisional, but are as close to the truth as we can come at present.

The problem of assessing records not supported by specimens collected (or at least seen by a competent authority) is always a knotty one for zoologists. Manifestly, it is not always possible to collect a specimen for every noted occurrence, nor would it always be desirable even if possible, and the testimony of travellers who are not zoologists must occasionally be accepted. The line here between true and false may at times be uncertain and require careful judgment to trace. In our experience with the classes of animals under consideration, in spite of the fact that our fauna is small, we have found

that identifications by untrained persons are often inaccurate. Since such identifications, without the specimens, cannot be rechecked, some may always bear a question mark. Their value then is in the nature of an "alert" to watch for corroborative information. We have, accordingly, screened all reports coming to us in terms of the known competence of the observer, the probability or improbability of such a record at the particular locality, and the possibility of confusion with an allied or similar form that might be expected, or was known, to occur there. Those which in our opinion are invested with doubt have been discarded, or if included, qualified by a footnote.

Certain alleged races which are more or less in taxonomic confusion have not been referred to subspecies, but simply to the parent species. For example, in the leopard frogs, satisfactory characters to distinguish between Rana pipiens pipiens Schreber and Rana pipiens brachycephala Cope are not known to the authors, the characters that have been published upon as diagnostic breaking down when applied to Canadian material. A similar situation pertains to the wood frogs Rana sylvatica sylvatica LeConte and Rana sylvatica cantabrigensis Baird. Even if arbitrary selections of such variable characters as leg length were used, it would still be impossible to assign geographical ranges to the alleged forms on the basis of such characters.

In the reptiles, certain of the western garter snakes appear to be in a state of taxonomic fluidity. Perusal of the literature dealing with this group that has appeared within the last fifteen to twenty years reveals divergence of opinion among competent students as to both characters and ranges that should be assigned to various forms, and as to what forms (and even species) should be considered valid. The authors confess themselves incompetent to judge between such differences of opinion, and so can only refer the forms in question to the parent species. In view of the present state of the literature and the very inadequate field work that has been done in western Canada, it would, we believe, be futile and misleading to attempt to assign racial names to any records of the species Thamnophis sirtalis from points west of the 120th meridian, which marks the Alberta-British Columbia border northward to 60° Latitude.

Some of the younger men in this field may, we hope, before their work is finished, leave some of these confused groups in a clearer and more orderly condition. In this connection it must be remembered that any species of living animal is not a static thing, but an expression of an active evolutionary force, i. e., something changing, perhaps in process of becoming something else, and not a once-and-for-all completed product (unless or until it becomes extinct). For this reason, a definition of a species is a convenience of zoologists, relative to a point in time, and must always be imperfect. If this is true of species it is much more immediately true of subspecies or races, therefore, since a perfect definition cannot be given of a thing in process of change, it seems futile to expect the subspecies problem ever to be finally settled to the agreement of all students of these, or any other, variable animals.

The question arises, indeed, as to whether much of the race-naming so in vogue today is justified by a cool appraisal of the facts. It might, in fact, be suggested that the perennial multiplication of named races erected upon trifling and inconstant characters is a major incubus of zoological literature of the current century, superfatting it with a senseless profusion of synonyms to frustrate and perplex serious minded zoologists, and creating unnecessary, time-consuming labour for bibliographers and librarians. We

might go even further and suggest that if some enterprising young systematists in a number of these hair-split groups would devote their lives' effort to unsplitting them again (except where sound biological study showed that they should be split) they would confer a benefit of the first magnitude on zoologists and librarians of the future. True, the synonyms already in the literature would remain as a dragging curse for all time, but their riotous, epidemic increase could be sharply tapered off by common sense systematic sanitation.

We are not here minimizing the importance of variations and races, nor of their role in speciation and evolution. Any variations or mutations may prove in time to be of evolutionary significance, or may not, and this applies equally to those so slight, or of such a nature, as to be nearly or completely useless as taxonomic characters. To note differences and resemblances where they may be observed by any means whatever is a legitimate function of the study of zoology, but to attach trinomials or quadrimomials to any vagary of variation that appears in a population is something else again.

It is, we believe, generally conceded by zoologists that two races of the same species will not be found occupying the same ecological niche in the same geographical area. To determine the ecological niche may not be a simple matter, but the application of race names might often better await such information. If the supposed races widely overlap in geographical territory it would seem that this information is fundamental. It will never be obtained by counting scales or spots, applying some preferred mathematical formula and plotting the result in a graph to show the mean, the mode, the standard deviation and probable error; yet much of the current race-splitting seems to derive from no deeper study. We freely concede that the latter form of study is useful and necessary for a knowledge of certain quantitative elements in populations, but the core of the problem, viz., the nature of the biological factors that underlie the variations, and the meaning of the variations in terms of those factors and in the lives of the animals, remains untouched. In the same train of thought, we should remark with considerable emphasis that the application of racial names to geographic gradients of variation is a highly dubious procedure, but the variations and any factors relating to them are worthy of careful study.

We are, according to currently accepted classification, using trinomials (if in use) in cases where the subspecific status is not in question. We have followed the arrangement and nomenclature used in the sixth edition of the check list of North American amphibians and reptiles (Schmidt, 1953), except in the case of Bufo americanus, but have omitted the usual references to the original descriptions, type localities, and synonymy, which are already covered in that and other works. The purpose of the present list is purely that of indicating ranges in Canada and Alaska, so that only the ranges, or portions of ranges, north of the Canada-United States border are dealt with here. The portions of ranges that extend south of that line are treated and mapped in various United States publications.

For each form listed there is a map (except in cases of single-locality records) indicating its range within the territory under consideration. Each locality named in the text is marked by a spot on the map pertaining to the form in question; localities close together may be included under a single spot. An open circle indicates reported occurrence in an area, but without a precise locality. We have not followed the usual pro-

cedure of shading the areas of the ranges: this is because sufficient collecting has not been done and it is often impossible to say whether many of the spots on the maps indicate the range limits of the animals or the collecting stations. Also, in view of the long distances that separate many of these collecting stations, any decision as to precisely how they should be joined by an enclosing line (the edge of the shading) would be arbitrary and speculative.

When the records of a species are few or sporadic, every locality of record is named and mapped. When a species is common within a circumscribed area, or its range extensive, usually only the peripheral localities that mark the apparent limits of its range are named and mapped, and not always all of these, but only those so located as to appear significant in conveying information about the probable extent and contour of its range. The citation of all records from the areas concerned was once contemplated, a procedure for which there is precedent, but after due consideration, and regarding the opinions of some other zoologists, this idea was abandoned.

An authority for each locality record is given. If a record is from the literature, the reference is given by author, date, and page following the place name, and may be found in full in the bibliography at the end of the book. If there is known to the authors a specimen in a museum, the museum is cited by initials following the place name. If a specimen was seen by one or both authors, or reported by personal communication, etc., such facts are indicated by initials and names following the place name (see list of abbreviations below). Usually, however, a single authority reference is cited for each record, and a museum reference if known, whether it is based upon one or many specimens, and no attempt was made to cite all literature references supporting any locality record, or all museums where such specimens may be housed. Once a record is positively established, further citations of authority in support of it would be beside the purpose of this work, which is not an inventory of records, but an outline of distribution.

List of abbreviations for museums, collections, and authorities (other than literature references) for locality records.

CM	Carnegie Museum, Pittsburgh, Pennsylvania.
CU	Cornell University, Ithaca, New York.
MM	Manitoba Museum, Winnipeg, Manitoba.
MCZ	Museum of Comparative Zoology, Cambridge, Massachusetts.
NMC	National Museum of Canada, Ottawa, Ontario.
NSMS	Nova Scotia Museum of Science, Halifax, Nova Scotia.
PMBC	Provincial Museum of British Columbia, Victoria, British Columbia.
ROMZP	Royal Ontario Museum of Zoology and Palaeontology, Toronto, Ontario.
UA	University of Alberta, Edmonton, Alberta.
USNM	United States National Museum, Washington, District of Columbia.
PC	Personal communication (name of communicator following in parentheses).
SC	Specimen (or specimens) collected by member of ROMZP staff, but not now in its collection.
SR	Specimen (or specimens) received by ROMZP, but not now in its collection.
SS	Specimen (or specimens) seen by one or both of the authors.

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It is a pleasure to acknowledge the help received from many kind people, zoologists and laymen. Dr. S. C. Bishop, University of Rochester, Dr. G. C. Carl, Provincial Museum of British Columbia, Mr. C. L. Patch, National Museum of Canada, Dr. C. H. Pope and Dr. K. P. Schmidt, Chicago Natural History Museum, and Dr. A. H. Wright, Cornell University read portions of the manuscript and advised on particular points.

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Specimens or records and various notes were contributed by Dr. A. E. Allin, Dr. R. M. Bailey, Mr. L. H. Beamer, Mr. S. Bleakney who kindly permitted us to use records of his in manuscript (1954) in advance of publication, Mr. G. M. Bureau, Mr. R. H. Burns, Professor E. S. Cieslak, Mr. R. Conant, Professor A. F. Coventry, Mr. J. H. Crysdale, Mr. F. W. Darroch, Mr. N. S. Denman, Mr. A. Dixon, Dr. S. W. Fox, Mr. S. W. Gorham, Mr. A. F. Hemsley, Dr. A. G. Huntsman, Mr. J. Land, Mr. R. V. Lindsay, Mr. H. C. Lumsden, Dr. D. A. MacLulich, Mr. H. Milnes, Dr. M. B. Mittleman, Dr. J. E. Moore, Mr. M. G. Netting, Mr. T. D. Patterson, Mr. K. Racey, Dr. D. S. Rawson, Mr. K. Reading, Dr. L. S. Russell, Mr. S. C. Simons, Dr. A. G. Smith, Dr. J. M. Speirs, Mr. J. K. Steen, Dr. H. Trapido, Mr. S. Troyer, Dr. C. F. Walker, Mr. F. A. Walden, Mr. S. Waller, Mr. G. Watmough, Dr. W. Y. Watson, Mr. R. V. Whelan, Mr. A. B. Wheatley, Mr. H. C. White, Mr. C. H. Zavitz.

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Without the kind help acknowledged above and so generously given, our task would have been more difficult, less pleasant, and less successful. Before the list of acknowledgments is ended, one, of the fact that most of the spade work of searching the literature and preparing the card file of published records was done by the junior author, is due and gratefully made.

E. B. S. Logier,
April 18, 1955.

Class AMPHIBIA

Order CAUDATA

Family PROTEIDAE

Necturus maculosus maculosus Rafinesque

MUDPUPPY, WATERDOG

Range in Canada: From southeastern Manitoba eastward to about Quebec City; tributaries of the Upper and Lower Great Lakes and St. Lawrence River. Map 1.

Canadian locality records: MANITOBA. Winnipeg (ROMZP). ONTARIO. Algoma Dist., Sault Ste Marie (Agassiz 1850, p. 382). Bruce Co., Crane River and Lucknow (ROMZP). Carlton Co., Ottawa (ROMZP). Kent Co., Merlin (ROMZP). Manitoulin Dist., Sheguindah (ROMZP). Norfolk Co., Long Point (ROMZP). Parry Sound Dist., Frank's Bay (ROMZP). Prince Edward Co., Hallowell (ROMZP). Thunder Bay Dist., Fort William (ROMZP). Wentworth Co., Hamilton (ROMZP). York Co., Toronto (ROMZP). QUEBEC. Champlain Co., Cap de la Madeleine (Brenvier 1875, p. 73).

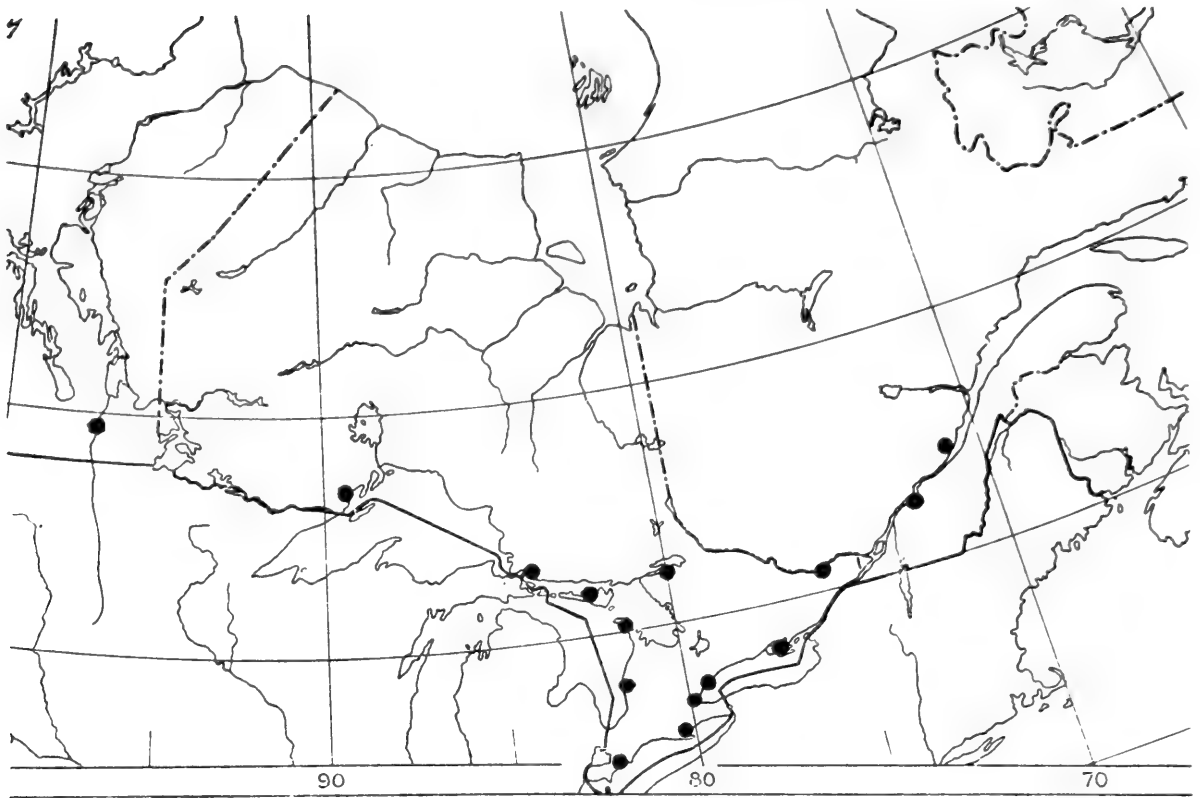
Canadian locality records: BRITISH COLUMBIA. New Westminster Dist., Chilliwack Lake (Cope 1889, p. 112). Cultus Lake (ROMZP). Sumas Lake (Boulenger 1882, p. 49).

Ambystoma gracile gracile Baird

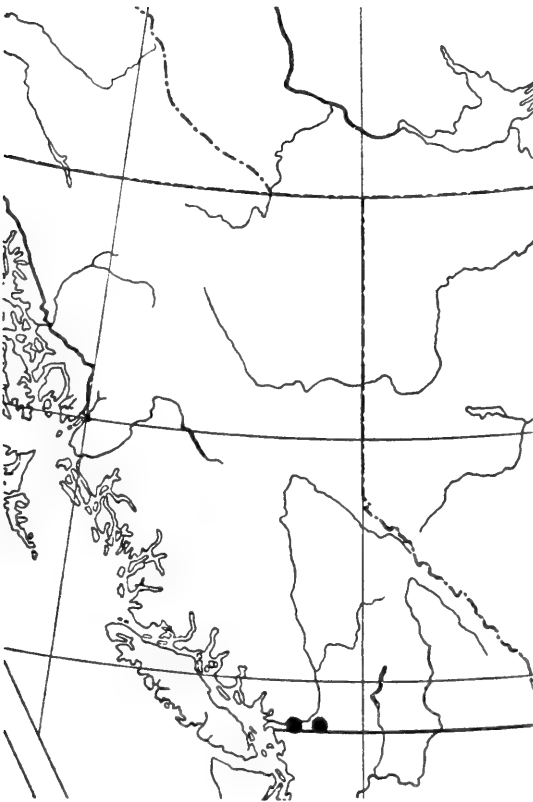
OREGON SALAMANDER

Range in Canada: Vancouver Island and adjacent mainland of British Columbia. Map 3.

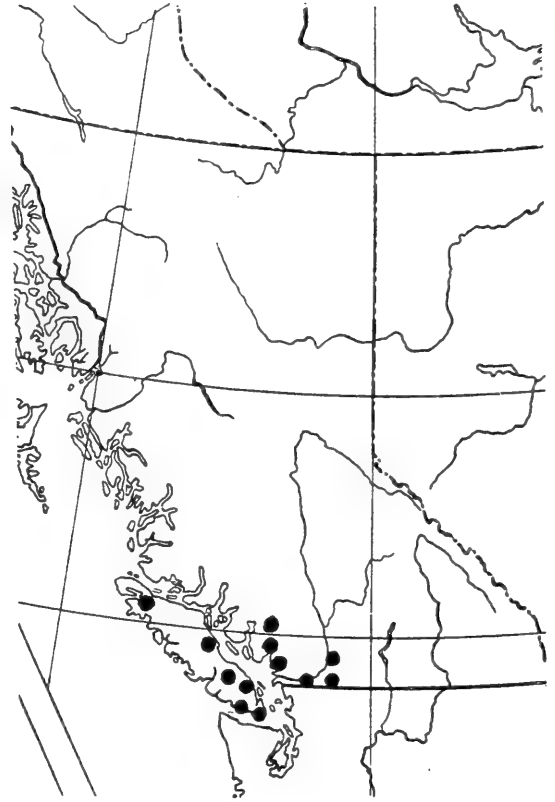
Canadian locality records: BRITISH COLUMBIA. MAINLAND. New Westminster Dist., Alta Lake (Carl and Cowan 1945, p. 43). Chilliwack Lake, Holyburn Ridge, Lihumitson



Map 1. Necturus maculosus maculosus



Map 2. Dicamptodon ensatus



Map 3. Ambystoma gracile gracile

Mt. (ROMZP). Nita Lake (Dunn 1944, p. 130, PMBC). Vancouver (Dunn 1944, p. 130). Yale Dist., Hope (Carl and Cowan 1945, p. 43). VANCOUVER ISLAND. Cameron Dist., Mt. Arrowsmith (PMBC). Comox Dist., Forbidden Plateau (Brown and Slater 1939, p. 24). Nanaimo Dist., Nanaimo (Cowan 1937, p. K17). Renfrew Dist., Jordan River (PMBC). Rupert Dist., Quatsino (PMBC). Victoria Dist., Victoria (Hardy 1926, p. C22, PMBC).

Ambystoma gracile decorticatum Cope

BRITISH COLUMBIA SALAMANDER

Range in Canada and Alaska: Coastal British Columbia from Range 2 northward to southern Alaska. Map 4.

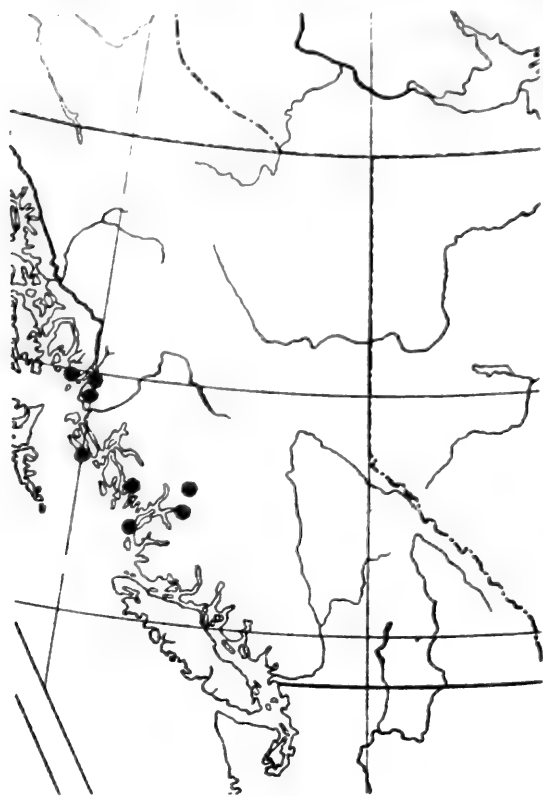
Canadian and Alaskan locality records: ALASKA. Mary Island (Dunn 1944, p. 130). BRITISH COLUMBIA. Coast Dist., Range 2, Hunter Island (Dunn 1944, p. 130). Coast Dist., Range 3, Bella Coola (Patch 1922, p. 76, PMBC). Hagensborg (Patch 1922, p. 76). Coast Dist., Ranges 3 and 4, Princess Royal Island (PMBC). Coast Dist., Range 5, Port Simpson (Cope 1889, p. 108). Prince Rupert (Hardy 1928, p. E17). Queen Charlotte Dist., Hecate Strait (Carl and Cowan 1945, p. 44).

Ambystoma jeffersonianum Green

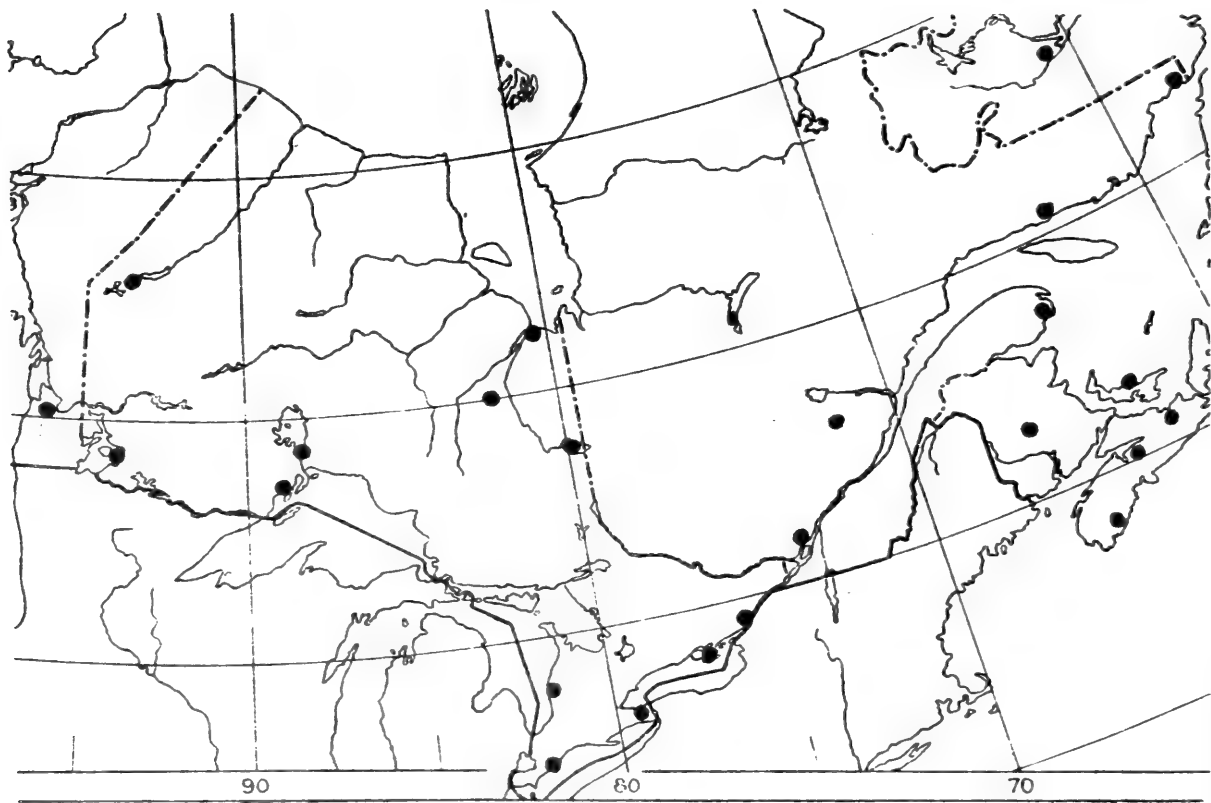
JEFFERSON'S SALAMANDER

Range in Canada: From eastern Manitoba to Nova Scotia, Prince Edward Island, and extreme eastern Quebec; northward in Ontario to 53° Latitude in the west, to James Bay in the east; to Goose Bay in Labrador. Map 5.

Canadian locality records: LABRADOR. Goose Bay (Bleakney 1954, NMC). MANITOBA. Beausejour (Seton 1918, p. 80). NEW BRUNSWICK. Sunbury Co., Assiskeag (Dunn 1918, p. 458). Oromocto Island (Cox 1898, p. 64). NOVA SCOTIA. Antigonish Co., Hants Co., Queens Co. (Bleakney 1953, p. 125). ONTARIO. Bruce Co., Lucknow (Yarrow 1882, p. 150). Carlton Co., Ottawa (Groh 1924, p. 159). Cochrane Dist., Lake Abitibi, Moose River (Cope 1889, p. 94). Smoky Falls (ROMZP). Kenora Dist., Whitefish Bay (ROMZP). Kent Co., Rondeau Park (ROMZP). Leeds Co., Brockville (Toner and de St. Remy 1941, p. 10). Lincoln Co., St. Catharines (ROMZP). Patricia Dist., Favourable Lake, (ROMZP). Prince Edward Co., Hallowell (ROMZP). Thunder Bay Dist., Orient Bay, Port Arthur (ROMZP). PRINCE EDWARD ISLAND. Queens Co., Brackley Beach (Hurst 1946, p. 121). QUEBEC. Gaspe Co., Grand River (Cox 1899b, p. 194). Jacques Cartier Co., Montreal (ROMZP). Laurentides National Park (Vladykov 1941, p. 83). Saguenay Co., Betchewan (CU). Belles Armours (Packard 1866, p. 272).



Map 4. Ambystoma gracile decorticatum



Map 5. Ambystoma jeffersonianum

Ambystoma macrodactylum Baird

LONG-TOED SALAMANDER

Range in Canada: British Columbia northward at least to Stikine River, from Vancouver Island eastward to Jasper and Banff in Alberta. Map 6.

Canadian locality records: ALBERTA. Banff (ROMZP). Jasper (MCZ). BRITISH COLUMBIA. MAINLAND. Cariboo Dist., Moose River (Hollister 1912, pp. 45-46). Cassiar Dist., Stikine River near Telegraph Creek (Slevin 1928, p. 30). Lake Tetana (Stanwell-Fletcher 1940, p. 137). Coast Dist., Range 3, Bella Coola (Patch 1922, p. 75). Kootenay Dist., Creston (Hardy 1927, p. C38). Cranbrook (Cowan 1937, p. K17). New Westminster Dist., Hatzic (Cope 1894, p. 181). Vancouver (Cowan 1937, p. K17). Similkameen Dist., Penticton (Cowan 1937, p. K17). VANCOUVER ISLAND. Esquimalt Dist., Langford Station (Carl 1942a, p. 56).

Ambystoma maculatum Shaw

SPOTTED SALAMANDER

Range in Canada: From Lake Nipigon, Ontario eastward through Quebec, New Brunswick, Prince Edward Island, and Nova Scotia to Cape Breton Island, north in Ontario to about 50° Lat. and in Quebec to Gaspé. Map 7.

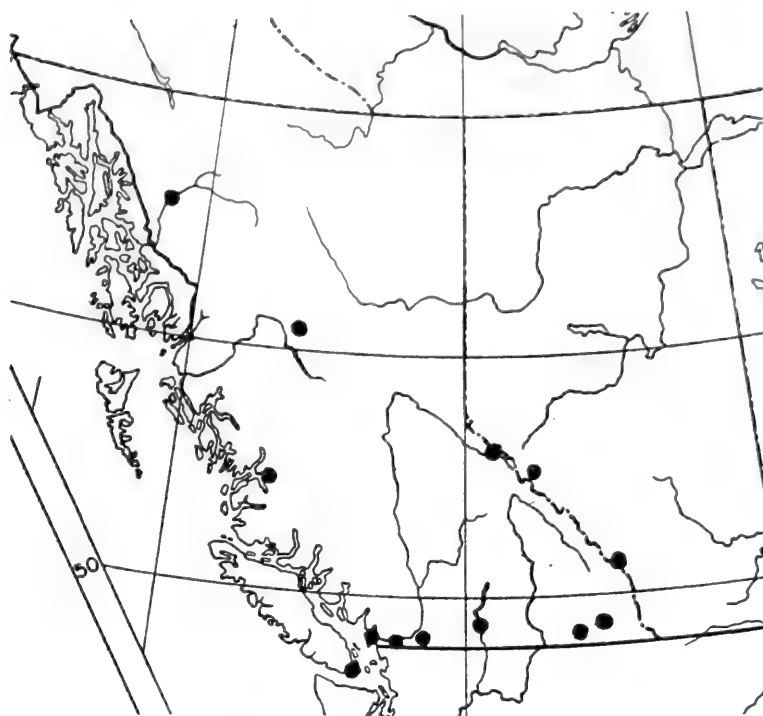
Canadian locality records: NOVA SCOTIA. Halifax Co., Halifax (Hay 1892, p. 436). Inverness Co., Upper Margaree River (ROMZP). PRINCE EDWARD ISLAND. Prince Co., Ellerslie (ROMZP). ONTARIO. Bruce Co., Lucknow (ROMZP). Cochrane Dist., Kapuskasing (ROMZP). Frontenac Co., Kingston (ROMZP). Middlesex Co., Bryanston (Elliot 1905, p. 176). Nipissing Dist., Lake Timagami (Coventry 1931, p. 109). Prince Edward Co., Cressy (Logier 1941, p. 95). Thunder Bay Dist., Lake Nipigon (ROMZP). York Co., Toronto (ROMZP). QUEBEC. Gaspe Co., Gaspé (Cox 1907, p. 48). Quebec Co., Quebec (ROMZP). Rimouski Co., Bic (Trapido and Clausen 1938, p. 118).

Ambystoma tigrinum tigrinum Green

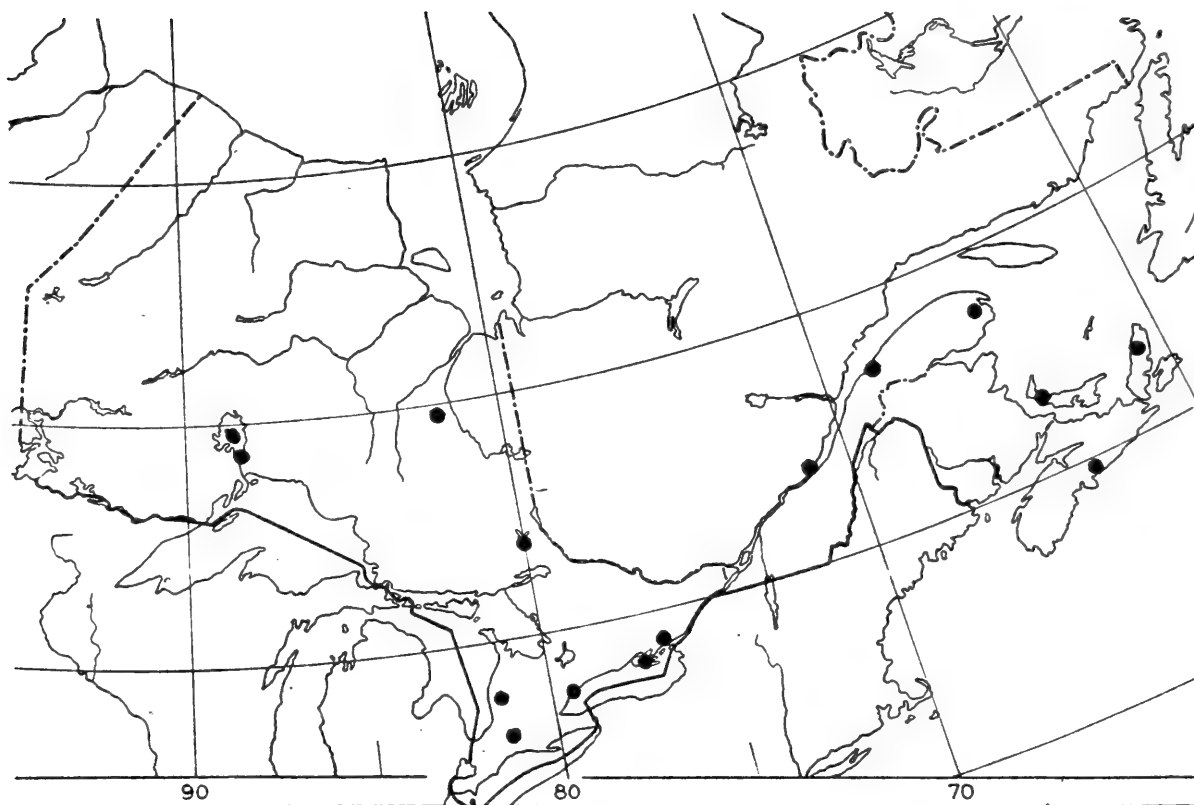
EASTERN TIGER SALAMANDER

Range in Canada: Extreme southwestern Ontario.

Canadian locality records: ONTARIO. Essex Co., Point Pelee (Logier 1925, p. 91).



Map 6. Ambystoma macrodactylum



Map 7. Ambystoma maculatum

Ambystoma tigrinum diaboli Dunn

DEVIL'S LAKE TIGER SALAMANDER, GRAY TIGER SALAMANDER

Range in Canada: Southern Saskatchewan and Manitoba. Map 8.Canadian locality records: MANITOBA. Boissevain (Dunn 1940, p. 161). Carberry, Ninette, Shoal Lake (ROMZP). Winnipeg (Dunn 1940, p. 161). SASKATCHEWAN. Belanger Creek, Indian Head, Saskatoon (ROMZP).Ambystoma tigrinum melanostictum Baird

NORTHWESTERN TIGER SALAMANDER, BLOTCHED TIGER SALAMANDER

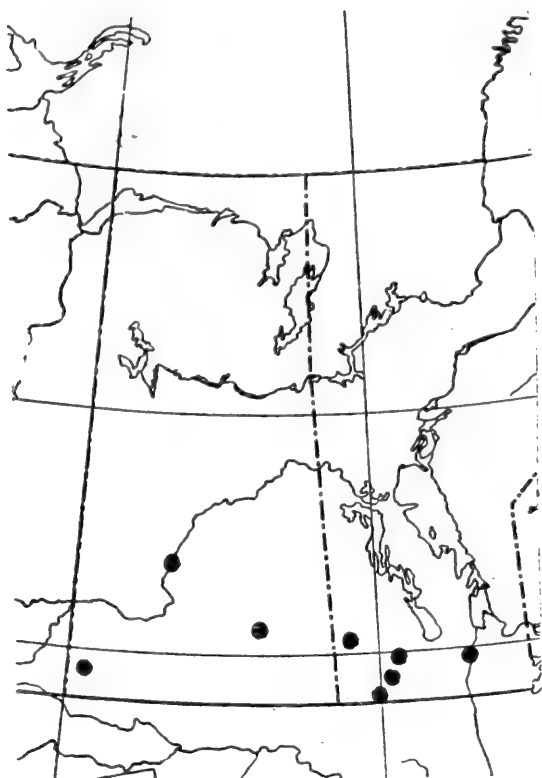
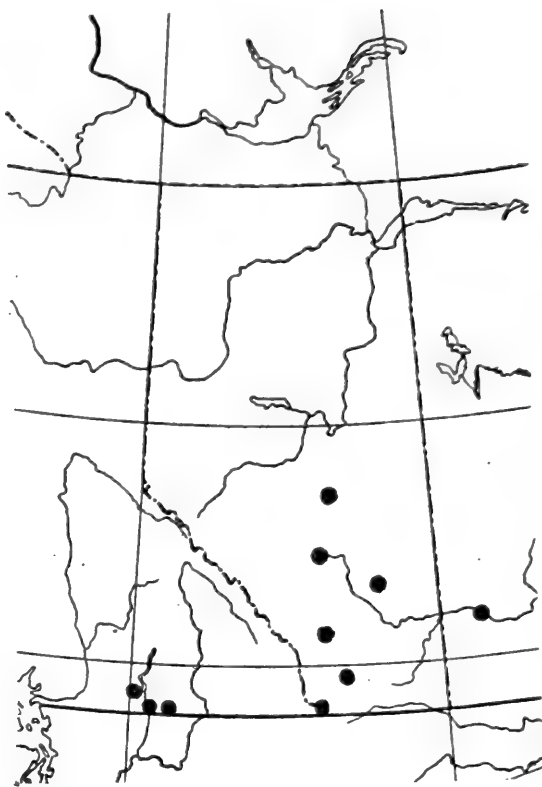
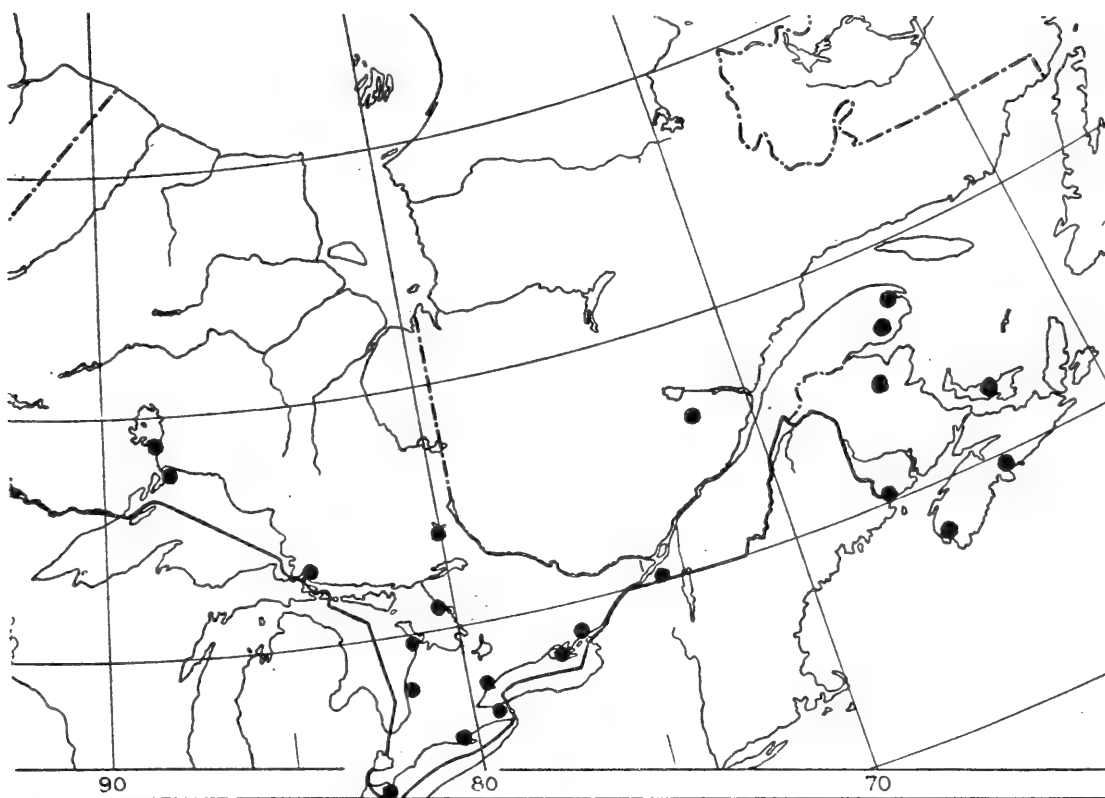
Range in Canada: Southeastern British Columbia, southern half of Alberta, presumably through southern Saskatchewan to southwestern Manitoba. Map 9.Canadian locality records: ALBERTA. Aldersyde (Fowler 1935, p. 60). Edmonton (ROMZP). High River (Fowler 1934, p. 140). Lethbridge, Munson, Red Deer, Waterton Park (ROMZP). BRITISH COLUMBIA. Osoyoos Dist., Brent Lake near Summerland (ROMZP). * Similkameen Dist., Midway (Dunn 1940, p. 159, NMC). Osoyoos (PMBC). SASKATCHEWAN. Kyle (ROMZP).* Larval specimens reported as Ambystoma gracile, Logier 1932, p. 316.

Family SALAMANDRIDAE

Diemictylus viridescens viridescens Rafinesque

RED-SPOTTED NEWT

Range in Canada: From Lake Nipigon eastward through Quebec including Gaspé, and New Brunswick to Nova Scotia and Prince Edward Island. All records from south of 60° Lat. Map 10.Canadian locality records: NEW BRUNSWICK. Charlotte Co., Chamcook Lake (Reid 1930, p. 465). Northumberland Co., Peabody Lake (ROMZP). NOVA SCOTIA: Throughout the province (Bleakney 1952, p. 125). Halifax Co., Halifax (Jones 1865, p. 127). Yarmouth Co. (Dunn 1918, p. 451). ONTARIO. Algoma Dist., Maclellan, (ROMZP). Bruce Co., Lucknow, Pike Bay (ROMZP). Essex Co., Pelee Island (ROMZP). Leeds Co., Marble Rock (Toner and de St. Remy 1941, p. 10). Lincoln Co., St. Catharines (ROMZP). Nipissing Dist., Lake Timagami (Coventry 1931, p. 109). Norfolk Co., Long Point (ROMZP). Parry Sound Dist., Franklin Island (ROMZP). Prince Edward Co., Hallowell, Picton (ROMZP). Thunder Bay Dist., Lake Nipigon, St. Ignace Island

Map 8. *Ambystoma tigrinum diaboli*Map 9. *Ambystoma tigrinum melanostictum*Map 10. *Diemictylus viridescens viridescens*

(ROMZP). York Co., Toronto (ROMZP). PRINCE EDWARD ISLAND. Bedford Co., Afton Lake (Cox 1899b, p. 194). QUEBEC. Gaspe Co. (Ball 1937, p. 230). Grand Pabos Valley (Cox 1899b, p. 194). Huntington Co., Covey Hill (ROMZP). Laurentides National Park (Vladykov 1941, p. 83).

Taricha granulosa granulosa Skilton
ROUGH-SKINNED NEWT, OREGON NEWT

Range in Canada and Alaska: Coastal British Columbia and Alaska northward to Hassler Harbour; Vancouver Island. Map 11.

Canadian and Alaskan locality records: ALASKA. Admiralty Island (Storer 1925, p. 49), Hassler Harbour (Slevin 1928, p. 24). Thorn Bay on Revillagigado Island (MCZ). BRITISH COLUMBIA. MAINLAND. Coast Dist., Range 3, Bella Coola (Cowan 1937, p. K17, PMBC). Coast Dist., Range 5, Metlakatla (Slevin 1928, p. 24). Lillooet Dist., Seton Creek near Lillooet (Cowan 1937, p. K17, PMBC). New Westminster Dist., Chilliwack River (Boulenger 1882, p. 20). Vancouver (Carl 1943, p. 25). Yale Dist., Hope (Cowan 1937, p. K17, PMBC). VANCOUVER ISLAND. Clayoquot Dist., Tofino (Cowan 1937, p. K17). Nanaimo Dist., Nanaimo, Newcastle Is. (ROMZP). Victoria Dist., Victoria (Cowan 1937, p. K17, PMBC).

Family PLETHODONTIDAE

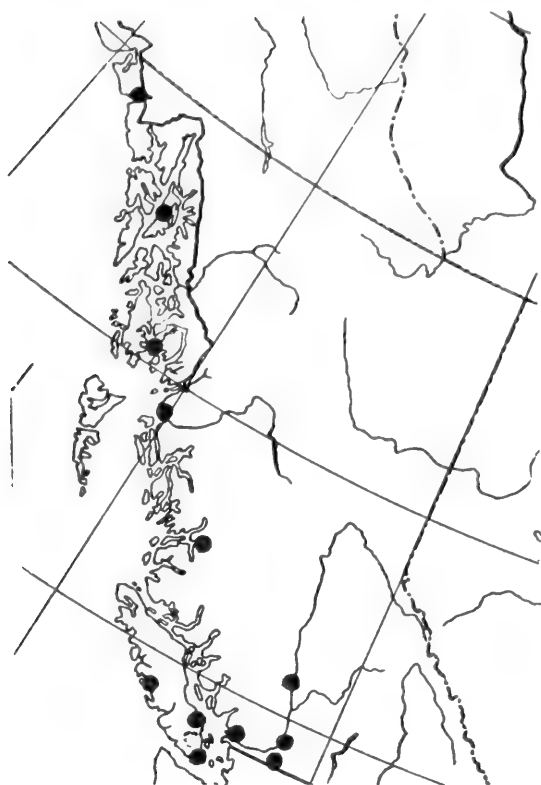
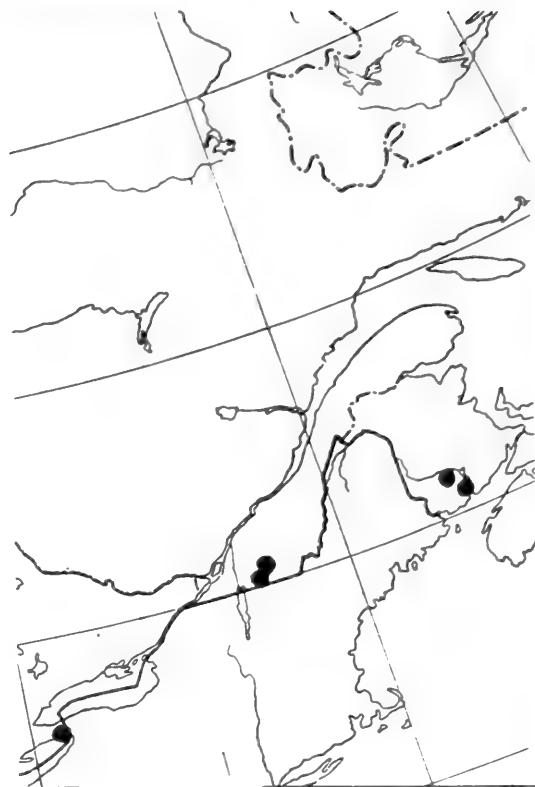
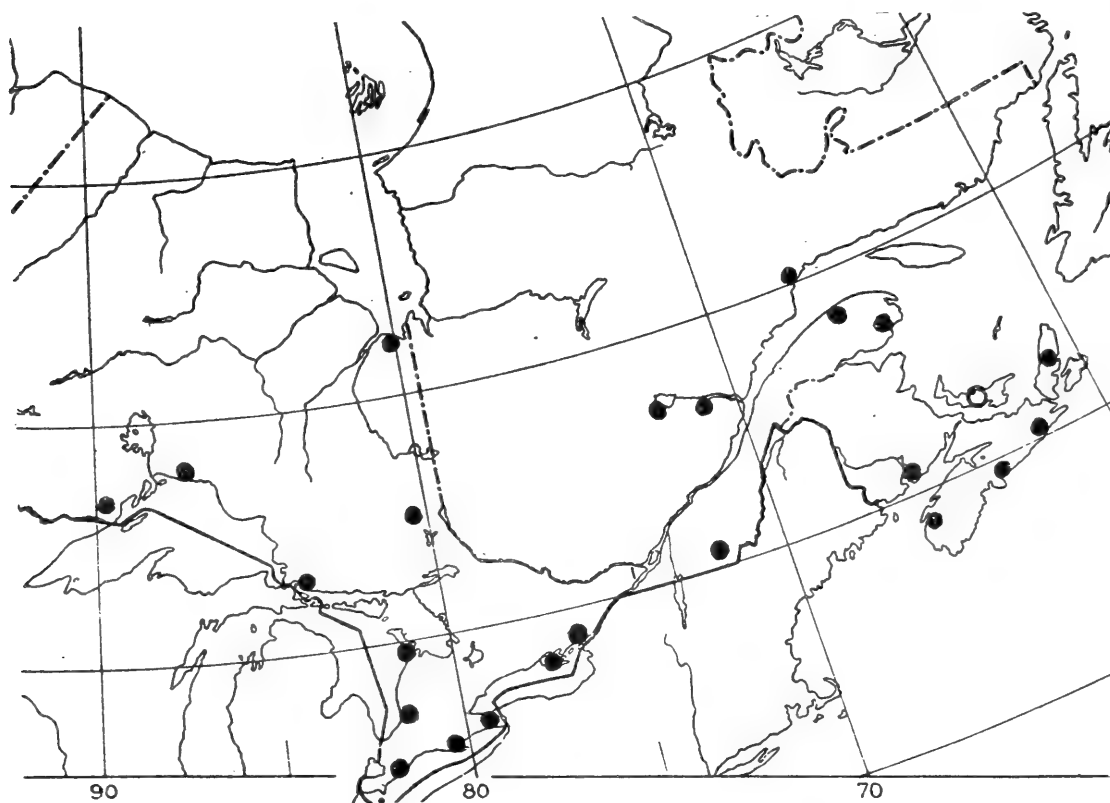
Desmognathus fuscus fuscus Rafinesque
NORTHERN DUSKY SALAMANDER

Range in Canada: Southern Ontario near Niagara River, extreme southern Quebec, southern New Brunswick. Map 12.

Canadian locality records: NEW BRUNSWICK. Kings Co., Browns Flats (ROMZP). Sunbury Co., Oromocto (Dunn 1926a, p. 93). York Co., Fredericton (Bleakney 1954, MS, NMC). ONTARIO. Welland Co., "Opposite Buffalo, New York" (Bishop 1943, p. 188). QUEBEC. Brome Co., Knowlton (Bleakney 1954, MS, NMC). Memphremagog (ROMZP). Sherbrook Co., Sherbrook (Bleakney 1954, MS, NMC).

Plethodon cinereus cinereus Green
RED-BACKED SALAMANDER

Range in Canada: From Thunder Bay District, Ontario eastward through Quebec and

Map 11. *Taricha granulosa granulosa*Map 12. *Desmognathus fuscus fuscus*Map 13. *Plethodon cinereus cinereus*

New Brunswick to Prince Edward Island and Nova Scotia. North in Ontario (reportedly) to James Bay, in Quebec to Lake St. John and the Matamac River on the north shore of the Gulf of St. Lawrence. Map 13.

Canadian locality records: NEW BRUNSWICK. Kings Co., Lily Lake north of St. John (Dunn 1918, p. 462). NOVA SCOTIA. Cape Breton Island (Bishop 1943, p. 232). Digby Co., Digby (PC: A. Loveridge, MCZ). Halifax Co., Ecum Secum (ROMZP). Halifax (Jones 1865, pp. 126-127). ONTARIO. Algoma Dist., Maclellan (ROMZP). Bruce Co., Wiarton (ROMZP). Cochrane Dist., James Bay (Cope 1889, p. 135). Huron Co., Clinton (ROMZP). Kent Co., Rondeau Park (ROMZP). Leeds Co., Gananoque (ROMZP). Lincoln Co., De Cew Falls (ROMZP). Nipissing Dist., Montreal River (ROMZP). Norfolk Co., Turkey Point (ROMZP). Prince Edward Co., Hallowell (ROMZP). Thunder Bay Dist., O'Connor Twp. (ROMZP). Schreiber (ROMZP). PRINCE EDWARD ISLAND. (Cox 1907, p. 52). QUEBEC. Chicoutimi Co. (Provancher 1878, p. 221). Gaspe Co., Perce Twp. (Trapido and Clausen 1938, p. 118). Roberval Co., Seigneurie de Mont Louis, Val Jalbert (Trapido and Clausen 1938, p. 118). Saguenay Co., Matamec River (Bleakney 1954, MS, NMC). Sherbrook Co., Sherbrook (Trapido and Clausen 1938, p. 118).

Plethodon vehiculum Cooper

WESTERN RED-BACKED SALAMANDER

Range in Canada: Southwestern British Columbia and Vancouver Island. Map 14.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. New Westminster Dist., Cultus Lake (ROMZP). Vancouver (Watney 1938, p. 89). Yale Dist., Hope (Patch 1929, p. 138, NMC). VANCOUVER ISLAND. Clayoquot Dist., Tofino (ROMZP). Uculet (Patch 1929, p. 138, NMC). Goldstream Dist., Goldstream (Cowan 1937, p. K18, PMBC). Nelson Dist., Union Bay (Dunn 1926a, p. 156). Renfrew Dist., Port Renfrew (Cowan 1937, p. K18, PMBC). Rupert Dist., Quatsino (PMBC). Sooke Dist., Sooke (Cowan 1937, p. K18, PMBC). South Saanich Dist., Brentwood (Cowan 1937, p. K18, PMBC).

Hemidactylium scutatum Schlegel

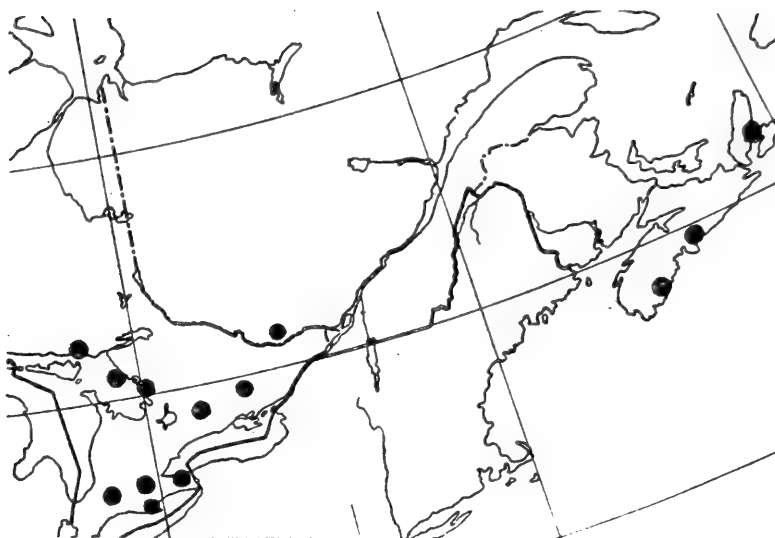
FOUR-TOED SALAMANDER

Range in Canada: Southern Ontario, presumably through southern Quebec, to New Brunswick and Nova Scotia. Map 15.

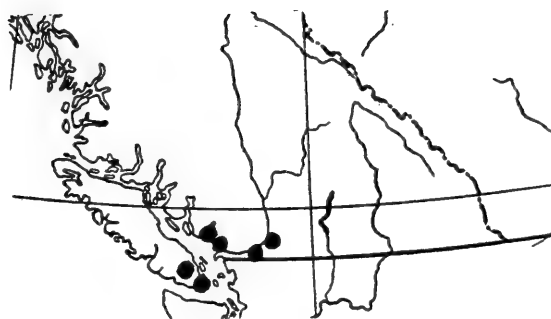
Canadian locality records: NOVA SCOTIA. Halifax Co., Armdale (Bleakney 1954, MS, NSMS). Halifax (Bleakney 1953, p. 180). Queens Co., Mill Village (Bleakney



Map 14. Plethodon vehiculum



Map 15. Hemidactylium scutatum



Map 16. Ensatina eschscholtzi oregonensis

1954, MS, NSMS). Victoria Co., Baddeck Bay (Richmond 1952, pp. 331-2, CM).
 ONTARIO. Brant Co., Paris (ROMZP). Lennox and Addington Co., Skootamatta Lake
 (PC: S. Bleakney). Lincoln Co., St. Catharines (Cope 1889, p. 131). Manitoulin
Dist., McGregor Bay (ROMZP). Middlesex Co., London (ROMZP). Muskoka Dist.,
 Go Home Bay (ROMZP). Norfolk Co., Turkey Point (ROMZP). Parry Sound Dist.,
 Franklin Island (ROMZP). Peterborough Co., Bald Lake, Lakefield (ROMZP). QUEBEC.
Gatineau Co., Glen Eagle (Bleakney 1954, MS, NMC).

Ensatina eschscholtzi oregonensis Girard

NORTHERN PACIFIC RED SALAMANDER

Range in Canada: Southwestern British Columbia including Vancouver Island. Map 16.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. New Westminster Dist.,
 Cultus Lake (Logier 1932, p. 318, SC). Gambier Island (Carl 1943, p. 34, PMBC).
 Vancouver (ROMZP). Yale Dist., Hope (Cowan 1937, p. K18, PMBC). VANCOUVER
 ISLAND. Cowichan Lake Dist., Cowichan Lake (Carl 1940, p. 129, PMBC). Victoria
Dist., Victoria (Hardy 1926, p. C22).

Gyrinophilus porphyriticus porphyriticus Green

NORTHERN PURPLE SALAMANDER

Range in Canada: Southern Ontario at Niagara River eastward to Brome County in
 southwestern Quebec. Map 17.

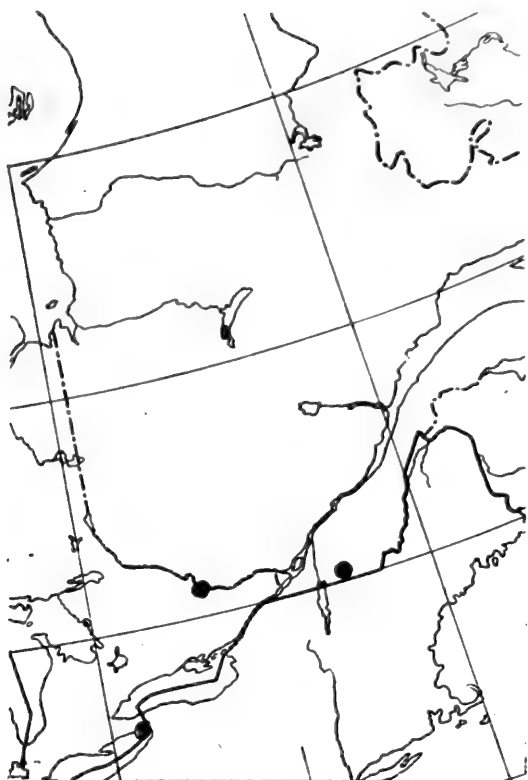
Canadian locality records: ONTARIO. Carlton Co., Britannia (Bleakney 1954, MS,
 NMC). Welland Co., Opposite Buffalo, New York (Dunn 1926a, p. 265).
 QUEBEC. Brome Co. (Hall 1947, p. 68, NMC).

Aneides ferreus Cope

CLOUDED SALAMANDER

Range in Canada: Vancouver Island and some of the adjacent islands of the British
 Columbia coast. Map 18.

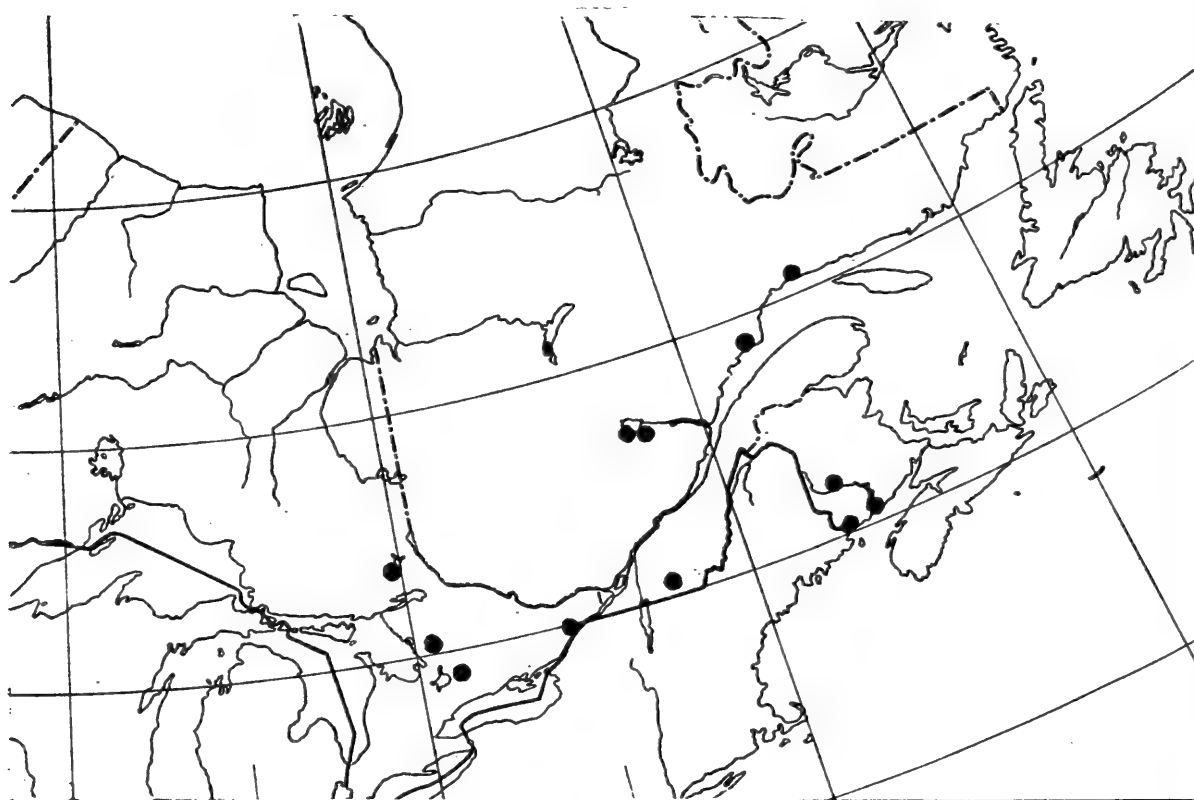
Canadian locality records: BRITISH COLUMBIA, COASTAL ISLANDS. Coast Dist.,
Range 1, Cracroft Island (Schmidt 1953, p. 50). VANCOUVER ISLAND. Clayoquot
Dist., Tofino (Cowan 1937, p. K18). Cowichan Lake Dist., Bayne (=Mayne) Island
 (Storer 1925, p. 118). Highland Dist., Mount Finlayson (Hardy 1926, p. C23, PMBC).



Map 17. Gyrinophilus porphyriticus
porphyriticus



Map 18. Aneides ferreus



Map 19. Eurycea bislineata bislineata

Lake and Victoria Dists., Mount Douglas (Hardy 1926, p. C23, PMBC). Nanaimo Dist., Denman Island (Dunn 1926a, p. 210). Hornby Island (Cowan 1937, p. K18). Nanaimo (ROMZP). Nelson Dist., Union Bay (Cowan 1937, p. K18). North Saanich Dist., Sidney (Hardy 1926, p. C23, PMBC). Rupert Dist., Quatsino (PMBC). Sooke Dist., Sooke (Cowan 1937, p. K18).

Eurycea bislineata bislineata Green

NORTHERN TWO-LINED SALAMANDER

Range in Canada: Southern Ontario east of Georgian Bay, eastward into New Brunswick, north in Quebec to Lake St. John and the Matamec River.

Canadian locality records: NEW BRUNSWICK. Charlotte Co., St. Andrews (ROMZP). Kings Co., Browns Flats (Bleakney 1954, MS, NMC). York Co., Scotch Lake (Bleakney 1954, MS, NMC). ONTARIO. Dundas Co., Morrisburg (ROMZP). Muskoka Dist., Huntsville (ROMZP). Nipissing Dist., Lake Timagami (ROMZP). Victoria Co., Cobocconk (ROMZP). QUEBEC. Chicoutimi Co., Lake Kenogami (ROMZP). Roberval Co., Val Jalbert (Trapido and Clausen 1938, p. 118). Saguenay Co., Godbout (Dunn 1926, p. 304). Lake up Matamec River (ROMZP). Sherbrook Co., Sherbrook (Trapido and Clausen 1938, p. 118).

Order SALIENTIA

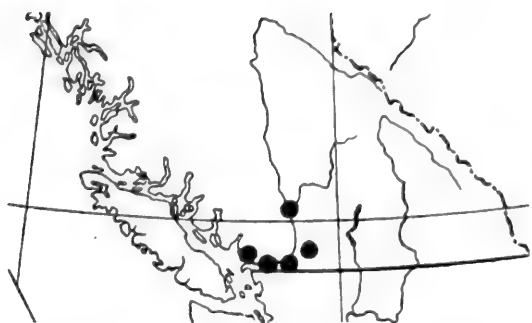
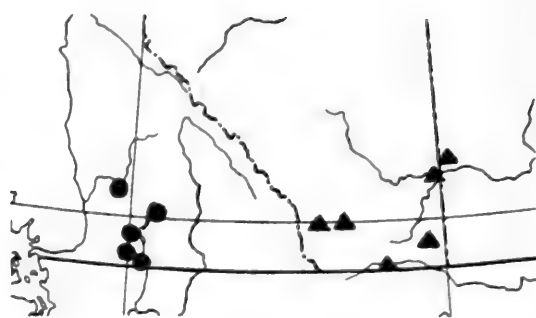
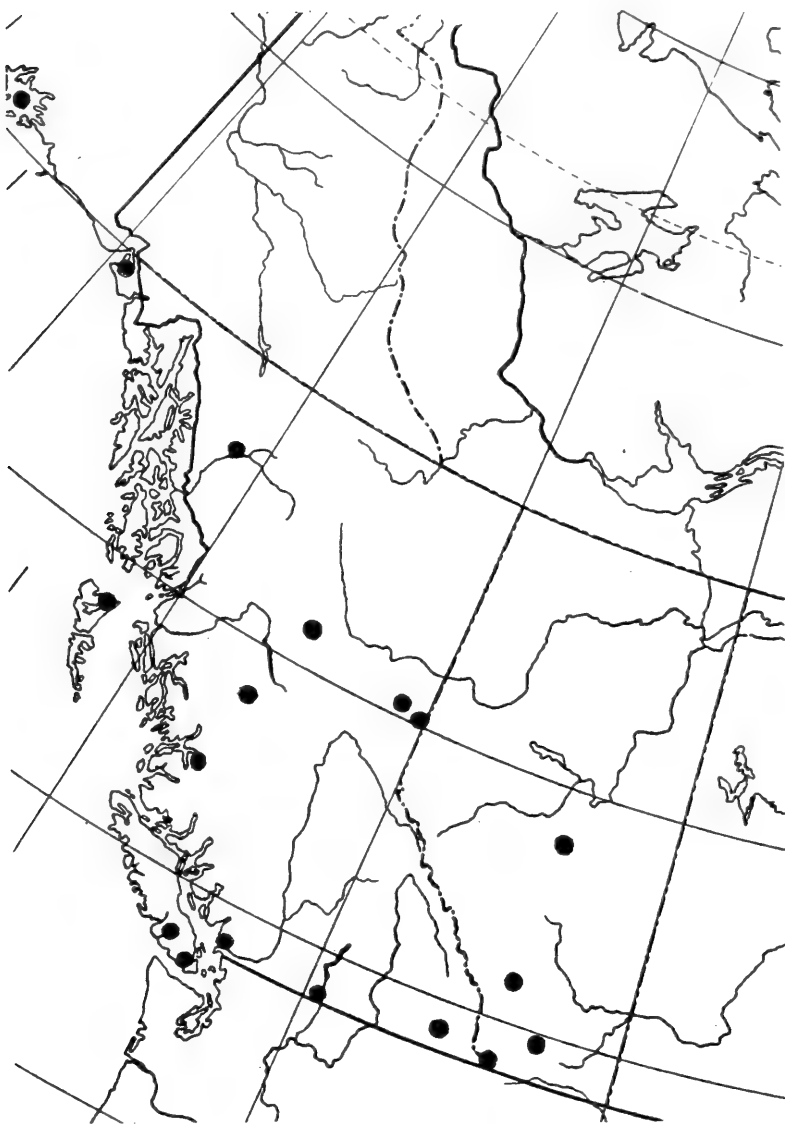
Family ASCAPHIDAE

Ascaphus truei truei Stejneger

OLYMPIC TAILED FROG (BELL TOAD, RIBBED TOAD).

Range in Canada: Southwestern corner of British Columbian mainland. Map 20.

Canadian locality records: BRITISH COLUMBIA. Kamloops Dist., Lytton (Slipp and Carl 1943, p. 127). New Westminster Dist., Liumchen (=Lihumitson) Creek, Reservoir Creek, Smith Creek (Ricker and Logier 1935, p. 46, ROMZP). Hatzic (Slipp and Carl 1943, p. 127). Sunshine Creek near Vancouver (Carl and Cowan 1945b, p. 52). Yale Dist., Allison Pass, 3 miles west of; Buckhorn Camp at 6000 ft., Timberline Valley at 6,500 ft., Three Brothers Area, 4 miles west of North Star Creek (Carl, Guiguet and Hardy 1952, p. 110).

Map 20. Ascaphus truei trueiMap 21. Scaphiopus bombifrons ▲
Scaphiopus hammondi
intermontanus ●Map 22. Bufo boreas boreas

Ascaphus truei montanus Mittleman and Myers
ROCKY MOUNTAIN TAILED FROG

Range in Canada: British Columbia adjacent to western Montana (Schmidt 1953, p. 57).

Family PELOBATIDAE

Scaphiopus bombifrons Cope
CENTRAL PLAINS SPADEFOOT

Range in Canada: Southern Alberta and extreme western Saskatchewan to north of 51° Latitude. Map 21.

Canadian locality records: ALBERTA. Barons, Claresholm (ROMZP). Empress (UA). Orien, St. Kilda (ROMZP). SASKATCHEWAN. Alsask (ROMZP).

Scaphiopus hammondi intermontanus Cope
GREAT BASIN SPADEFOOT, WESTERN SPADEFOOT

Range in Canada: Okanagan and Similkameen valleys of British Columbia northward to southern Kamloops District. Map 21.

Canadian locality records: BRITISH COLUMBIA. Kamloops Dist., Kamloops (Carl 1943, p. 40, PMBC). Similkameen Dist., Keremeos (Patch 1929, p. 138, NMC). Oliver (Carl 1942b, p. 129). Osoyoos (Carl 1943, p. 40, PMBC). Penticton (Carl 1942b, p. 129). Osoyoos Dist., Okanagan Landing (Patch 1929, p. 138, NMC). Summerland (ROMZP).

Family BUFONIDAE

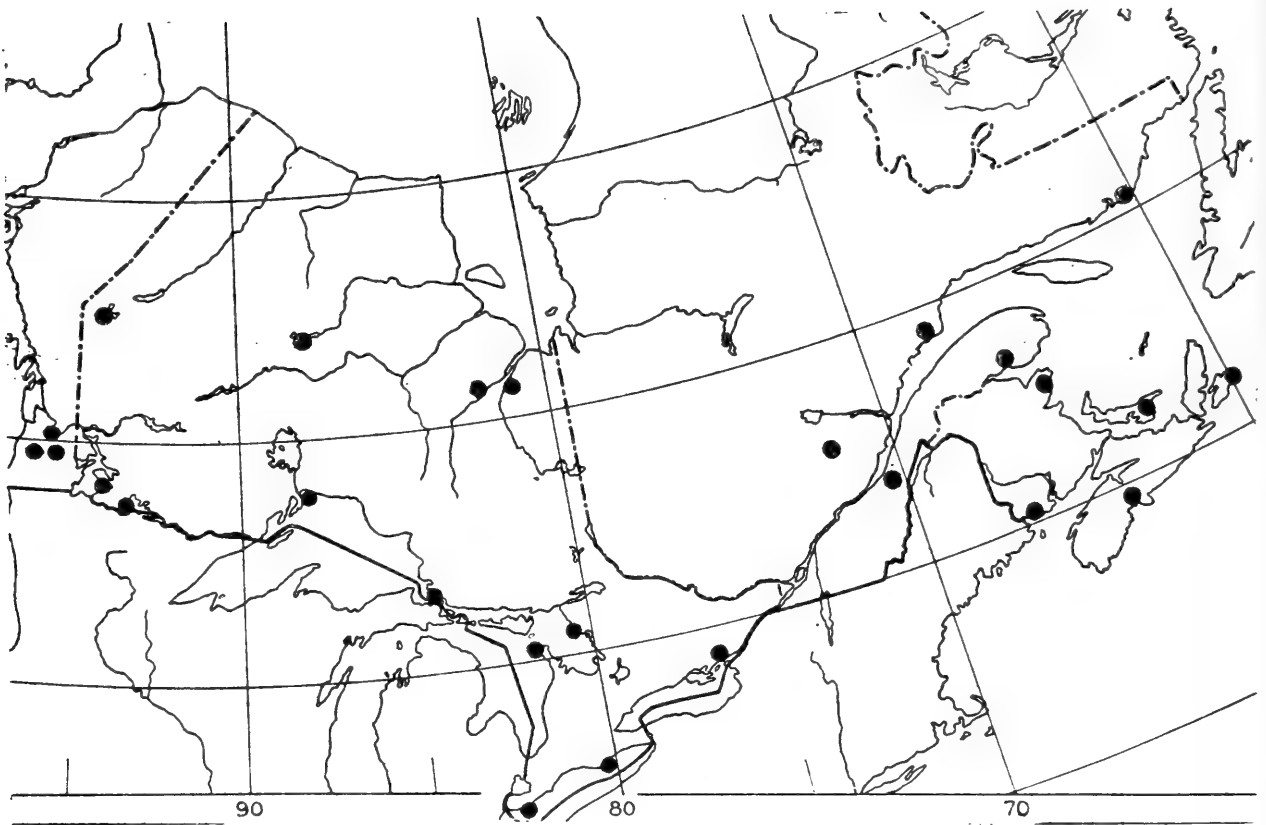
Bufo boreas boreas Baird.
NORTHWESTERN TOAD, BOREAL TOAD

Range in Canada: Southern Alaska, British Columbia and Alberta. Map 22.

Canadian and Alaskan locality records: ALASKA. Prince William Sound (VanDenburgh 1898, p. 139). Yakutat (ROMZP). ALBERTA. Edmonton (PMBC). High River (Fowler 1934, p. 139). Waterton Lakes, Whitney Creek (ROMZP). BRITISH COLUMBIA. MAINLAND. Cassiar Dist., Lake Tetana (Stanwell-Fletcher 1940, p. 137, PMBC).



Map 23. Bufo cognatus



Map 24. Bufo americanus americanus

Telegraph Creek (Storer 1925, p. 169). Coast Dist., Range 3, Bella Coola (Cowan 1937, p. K19). Coast Dist., Range 4, Ootsa Lake (Cowan 1937, p. K19). Kootenay Dist., Cranbrook (Cowan 1937, p. K19). New Westminster Dist., Vancouver (Slevin 1928, p. 92). Peace River Dist., Hudson Hope (ROMZP). Tupper Creek (PMBC). Similkameen Dist., Osoyoos (PMBC). Queen Charlotte Islands Dist., Masset (Storer 1925, p. 169). VANCOUVER ISLAND. Alberni Dist., Alberni Valley (Cowan 1937, p. K19). Cowichan Lake Dist., Cowichan Lake (Newcombe 1931, p. C19, PMBC).

Bufo cognatus Say

GREAT PLAINS TOAD

Range in Canada: Southern Alberta and Saskatchewan.

Canadian locality records: ALBERTA. Empress, Lost River (Moore 1953a, pp. 180-1, UA). Medicine Hat (ROMZP). Suffield, Taber, Vauxhall (Moore 1953a, pp. 180-1, UA). SASKATCHEWAN. Southern part (Schmidt 1953, p. 62).

Bufo americanus americanus Holbrook

AMERICAN TOAD

Range in Canada: From extreme eastern Manitoba to Cape Breton, Nova Scotia, northward in Ontario to Favourable Lake and James Bay, and in Quebec to Godbout and Harrington Harbour; intergrading with the race copei in the northern portion of its range. Map 24.

Canadian locality records: MANITOBA. Brightstone, Vivian, Whitemouth Lake (PC: L.T.S. Norris-Elye). NEW BRUNSWICK. Charlotte Co., St. Andrews (SS). Gloucester Co., Shippigan (ROMZP). NOVA SCOTIA. Cape Breton Co., Cape Breton (ROMZP). Halifax Co., Bedford (ROMZP). ONTARIO. Algoma Dist., Gros Cap (ROMZP). Bruce Co., Hopkins Bay (ROMZP). Cochrane Dist., Onakawana, Smoky Falls (ROMZP). Essex Co., Point Pelee (ROMZP). Frontenac Co., Kingston (Toner and de St. Remy, 1941, p. 12). Norfolk Co., Long Point (ROMZP). Parry Sound Dist., Franklin Island (ROMZP). Patricia Dist., Favourable Lake, Lake Attawapiskat (ROMZP). Rainy River Dist., Big Fork, Sable Island (ROMZP). Thunder Bay Dist., St. Ignace Island (ROMZP). PRINCE EDWARD ISLAND. Kings Co., Souris (ROMZP). QUEBEC. Bonaventure Co., Little Cascapedia (Trapido and Clausen 1938, p. 120). Laurentides National Park, Lac a Noel (Vladykov 1941, pp. 83-4). Saguenay Dist., Godbout, Harrington Harbour (ROMZP).

Preliminary remarks on Bufo americanus copei

In our attempt to summarize and map the range of the race B. t. copei separately from that of B. t. americanus we encountered some practical difficulty, because in order to assign geographic ranges to the races of any species it is necessary to comprehend with reasonable certainty the physical characters by which they may be distinguished from each other and identified. For the purpose of comparison with americanus we used the following published characters of copei: contrasty pattern; wide dorsal stripe; heavy, extensive ventral mottling; shorter legs and feet; longer, narrower parotoid glands; more nearly parallel and more widely spaced cranial crests; smoother ventral granulation.

In the course of examination of specimens it became apparent that: (a) while the James Bay material was usually distinguishable by its colour pattern, it often did not agree with copei in structural characters; and (b) that inland from James Bay both colour pattern and structural features were intergraded and indiscriminately mixed up, both as between individuals of the same populations and of different populations. Indeed, in terms of these characters, we often found it a frustrating task to try to distinguish copei from the variations of americanus.

Netting and Goin (1946, p. 107) gave the range of B. t. copei as "Forested portions of the James Bay drainage of Ontario and Quebec, east coast of Hudson Bay at least to Great Whale River, and Labrador." If this interpretation is right, then (in Ontario at least) americanus appears to be the dominant race over most of the range of copei, which suggests a rather anomalous situation as between two races of the same species. Gaige (1932, p. 134) and Netting (1933, PC) reported intergrades between copei and americanus from points within forty miles north of North Bay, Ontario. Vladykov (1941, p. 83) reported americanus and copei as "quite often found together in the same lake" in Laurentides Park, Quebec, but that copei "more typically frequents higher altitudes."

It is true that there is a notable tendency for certain characters, viz., brilliant pattern, presence of red, wide dorsal stripe, a wide lateral light stripe underscored with black, heavy ventral mottling, more nearly parallel cranial crests and shorter legs, to appear more frequently in northern populations, but not consistently, and the overlap (as already remarked upon) between individuals of populations of different areas is considerable. It follows that identification of specimens in many cases becomes an arbitrary matter, i. e., at what point of intergradation should a specimen be called copei—which ones, and how many, of the various characters should it possess, and to what degree of development?

We are not here attempting to refute the validity of copei, which we feel is in need of much closer study, but simply pointing out some plain facts of the problem encountered since it affects our method of mapping. At the same time, we cannot completely avoid the thought that the eastern North American toad, by whatever Latin name, or names, we care to call it, is a highly variable animal, and that when variations appear in populations it might be reasonable to enquire whether or not they are really significant of more than just that.

Correction of nomenclature

On page 26, lines 1 and 2, B. t. copei should read B. a. copei. On page 27, line 17, B. t. americanus should read B. a. americanus.

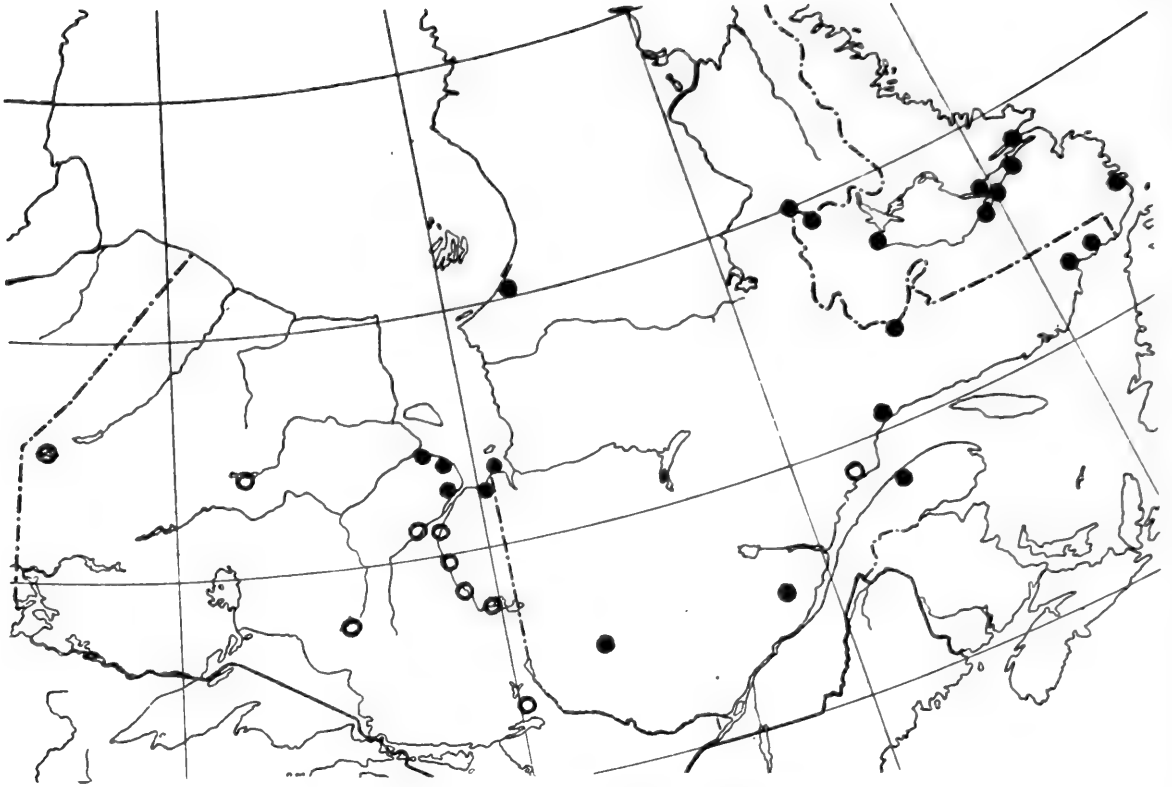
Notwithstanding these difficulties, we are attempting, as well as we can, to present a map for copei. On it we have marked every locality of record known to us, including those of apparent intergrades with americanus, since we are unable to draw any certain boundary between copei and intergrades. We are arbitrarily assuming that the James Bay specimens are pure copei, even though they do not necessarily agree with all the published characters of this form. The data for within Ontario are based almost completely upon material that we have seen, but outside Ontario almost wholly upon published matter. Intergrades with americanus, when known, indicated thus: (intg.), and marked on the map by an open circle.

The range of copei as outlined below is purely provisional. It may be challenged by other workers, and is, we fully realize, open for revision in the light of further work or other evidence.

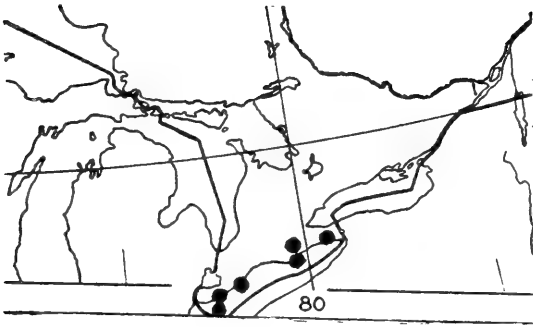
Bufo americanus copei Yarrow and Henshaw
COPE'S TOAD, HUDSON BAY TOAD

Range in Canada: From Labrador to James Bay, northward to Lake Melville in Labrador, to Knob Lake and Great Whale River in Quebec, and to Fort Albany in Ontario; belt of intergradation with B. t. americanus apparently extending southward to well below 47° Latitude and west to about 94° Longitude. Map 25.

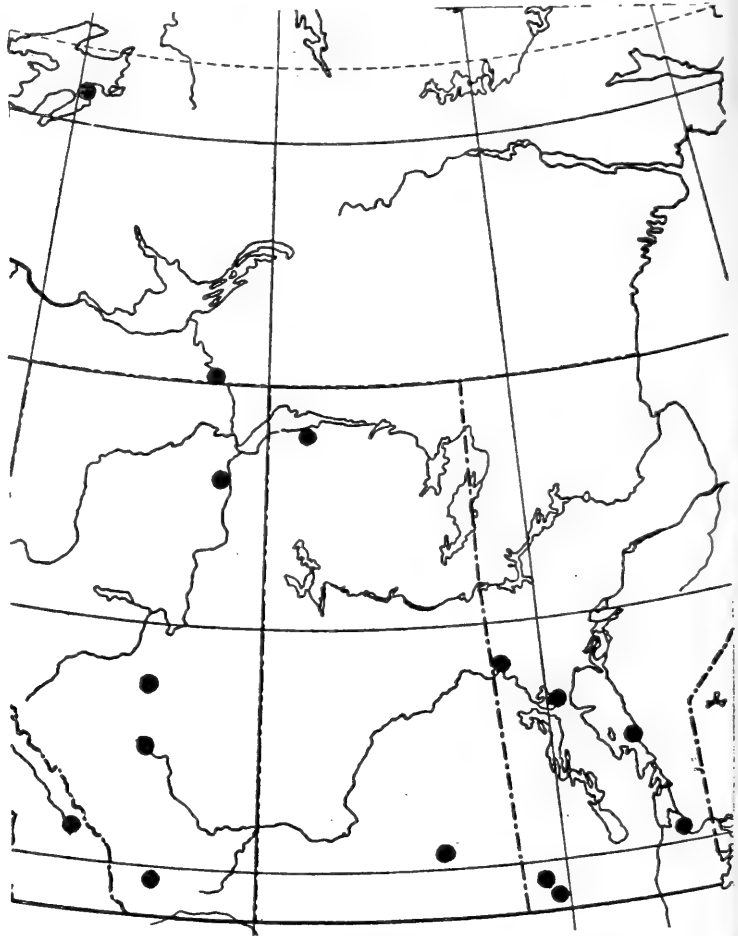
Canadian locality records: LABRADOR. Flour Lake; Hamilton River below Muskrat Falls (Backus 1954, p. 227). Lake Melville at Epinette Point, Etagaulet Bay, Pike Run Cove (Backus 1954, p. 226). Northwest River (Bleakney 1954, MS, NMC). St. Mary's River, St. Lewis Inlet (Backus 1954, p. 226). ONTARIO. Algoma Dist., Crooked Lake, east of Missanabie (intg.) (PC: M. G. Netting, CM). Cochrane Dist., Cochrane, 7 mi. S.W. of (PC: M. G. Netting, CM). Fort Albany, Fraserdale (intg.), Genier (intg.) (ROMZP). Hannah Bay, Halfway Point, Lake Abitibi (intg.) (ROMZP). Moose Factory (PC: M. G. Netting, CM). Moosonee, Nettichi Point, New Post (intg.), Onakawana (intg.), Palmquist (intg.), Ship Sands, Smoky Falls (intg.), Tidal Creek (ROMZP). Nipissing Dist., Marion Creek (intg.) (Gauge 1932, p. 134). Tomiko River (intg.) (PC: M. G. Netting, CM). Patricia Dist., Favourable Lake (intg.), Lake Attawapiskat (intg.) (ROMZP). QUEBEC. Abitibi Dist., Point Comfort (ROMZP). Gaspe Co., Ste-Anne-des-Monts River (Trapido and Clausen 1938, p. 120). Laurentides National Park (Vladykov 1941, pp. 83-4). Mistassini Dist., Great Whale River (Netting and Goin 1946, p. 107). Pontiac Co., near Wolf Lake (Grant 1941, p. 151). Saguenay Dist., Cape Whittle (Trapido and Clausen 1938, p. 120). Esquimo River (PC: R. Conant). Godbout (intg.) (ROMZP). St. Augustine (PC: R. Conant). Salmon Bay (Packard 1866, p. 272). Seven Islands Bay (Speck 1925, p. 6). Ungava Dist., Knob Lake (Bleakney 1954, MS).



Map 25. Bufo americanus copei ●
americanus X copei ○



Map 26. Bufo woodhousei fowleri



Map 27. Bufo woodhousei hemiophrys

Bufo woodhousei fowleri Hinckley
FOWLER'S TOAD

Range in Canada: The Lake Erie counties of Ontario. Map 26.

Canadian locality records: ONTARIO. Essex Co., Pelee Island, Point Pelee (ROMZP). Kent Co., Eriean, Rondeau Park (ROMZP). Norfolk Co., Long Point, Port Dover, Port Rowan (ROMZP). Simcoe (PC: M. Landon). Turkey Point (ROMZP). Welland Co., Burnaby Beach, Wainfleet (ROMZP).

Bufo woodhousei hemiophrys Cope
MANITOBA TOAD, DAKOTA TOAD

Range in Canada: Alberta, Saskatchewan, Manitoba; northward to Great Bear Lake, Northwest Territories. Map 27.

Canadian locality records: ALBERTA. Athabaska River (75 mi. downstream from Waterways) (ROMZP). Edmonton (PC: A. Loveridge, MCZ). Fort Smith (Patch 1934a, p. 146). Red Deer (PC: A. Loveridge, MCZ). Spray Lakes, Whitney Creek (ROMZP). MANITOBA. Boissevain (Seton 1918, p. 80). Brightstone (PC: L. T. S. Norris-Elye). Lake St. Martin (ROMZP). Lake Winnipeg (O'Donoghue 1921, p. 128). Souris, The Pas (ROMZP). NORTHWEST TERRITORIES. Great Bear Lake (Gunther, 1858a, p. 63). SASKATCHEWAN. Indian Head (ROMZP). McFarlane River (Harper 1931a, p. 68).

Family HYLIDAE

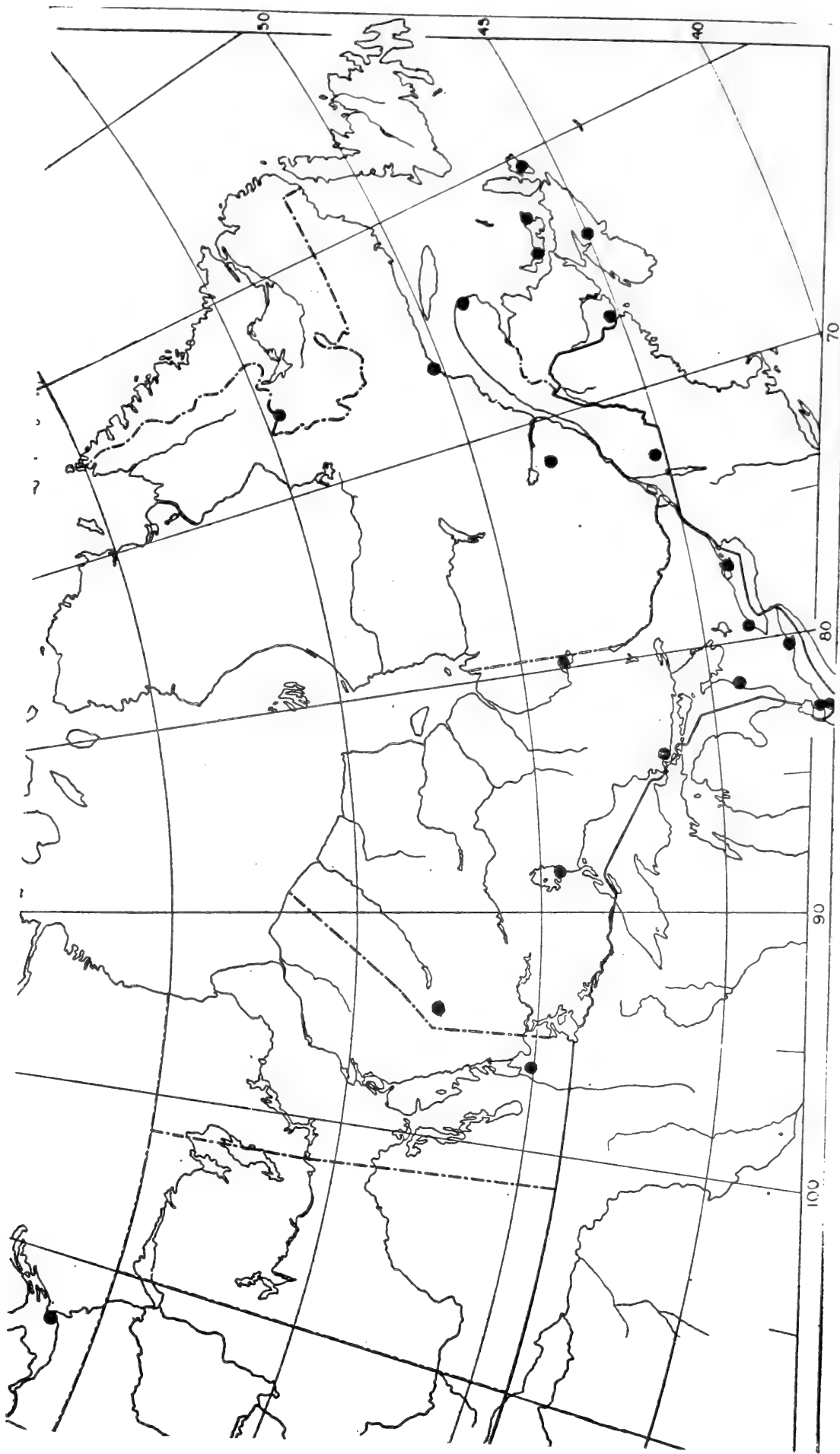
Acris gryllus crepitans Baird
SHORT-LEGGED CRICKET FROG

Range in Canada: Pelee Island and Point Pelee, Essex County, Ontario.

Canadian locality records: ONTARIO. Essex Co., Pelee Island and Point Pelee (ROMZP).

Hyla crucifer crucifer Wied
NORTHERN SPRING PEEPER

Range in Canada: From Great Slave Lake, Northwest Territories, to Menihek Lake, Labrador, and Cape Breton, Nova Scotia. North of 50° Latitude in the east, and everywhere west of Ontario the borders of the range are uncertain. Map 28.



Map 28. *Hyla crucifer crucifer*

Canadian locality records: LABRADOR. *Menihék Lake (Bleakney 1954, MS). MANITOBA. Selkirk Settlement (Yarrow 1882, p. 174). NEW BRUNSWICK. Charlotte Co., Chamcook Lake (SS: Logier). NORTHWEST TERRITORIES. Great Slave Lake at Resdelta (ROMZP). NOVA SCOTIA. Cape Breton Co., Cape Breton (ROMZP). Throughout the province (Bleakney 1952, p. 126). ONTARIO. Algoma Dist., MacLennan (ROMZP). Bruce Co., Lucknow (ROMZP). Cochrane Dist., Lake Abitibi (Dymond 1925, p. 35). Essex Co., Pelee Island (Jones 1912, p. 103). Point Pelee (Logier 1925, p. 92). Norfolk Co., Turkey Point (ROMZP). Patricia Dist., Favourable Lake (ROMZP). Prince Edward Co., Hallowell (ROMZP). Thunder Bay Dist., Lake Nipigon (ROMZP). York Co., Toronto (ROMZP). PRINCE EDWARD ISLAND. Kings Co., Souris (ROMZP). Prince Co., Lot 16 (ROMZP). QUEBEC. Gaspe Co., Gaspe (Cox 1899a, p. 152). Laurentides National Park (Vladykov 1941, p. 83). Saguenay Co., Sept Isles (Bleakney 1954, MS, NMC). Sherbrook Co., Sherbrook (Marcotte 1918, p. 114).

* Verbal report by medical intern at Knob Lake, but while his description could refer to nothing else, no specimen has actually been collected north of Sept Isles.

Hyla regilla Baird and Girard

PACIFIC TREE TOAD

Range in Canada: Southern British Columbia, north in the Coast District into Range 4. Map 29.

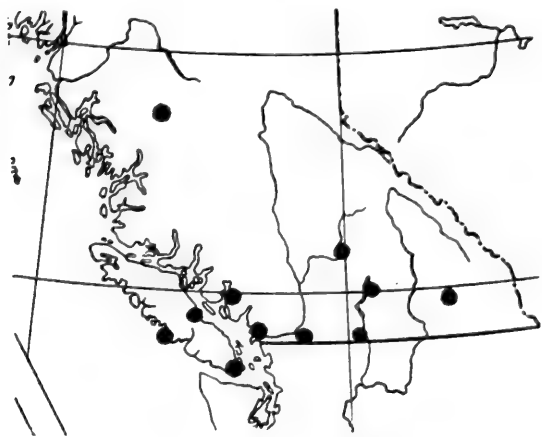
Canadian locality records: BRITISH COLUMBIA. MAINLAND. Coast Dist., Range 4, Eutsuk Lake (Cowan 1937, p. K19). Kamloops Dist., Paul Lake (ROMZP). Kootenay Dist., Kaslo (ROMZP). New Westminster Dist., Cultus Lake (ROMZP). Jervis Inlet (Cowan 1937, p. K19). Vancouver (Wright 1949, p. 12). Osoyoos Dist., Okanagan Landing (ROMZP). Similkameen Dist., Osoyoos (Carl 1942b, p. 129). VANCOUVER ISLAND. Clayoquot Dist., Tofino (ROMZP). Esquimalt Dist., Esquimalt (Slevin 1928, p. 116). Nelson Dist., Union Bay (Slevin 1928, p. 116).

Hyla versicolor versicolor Le Conte

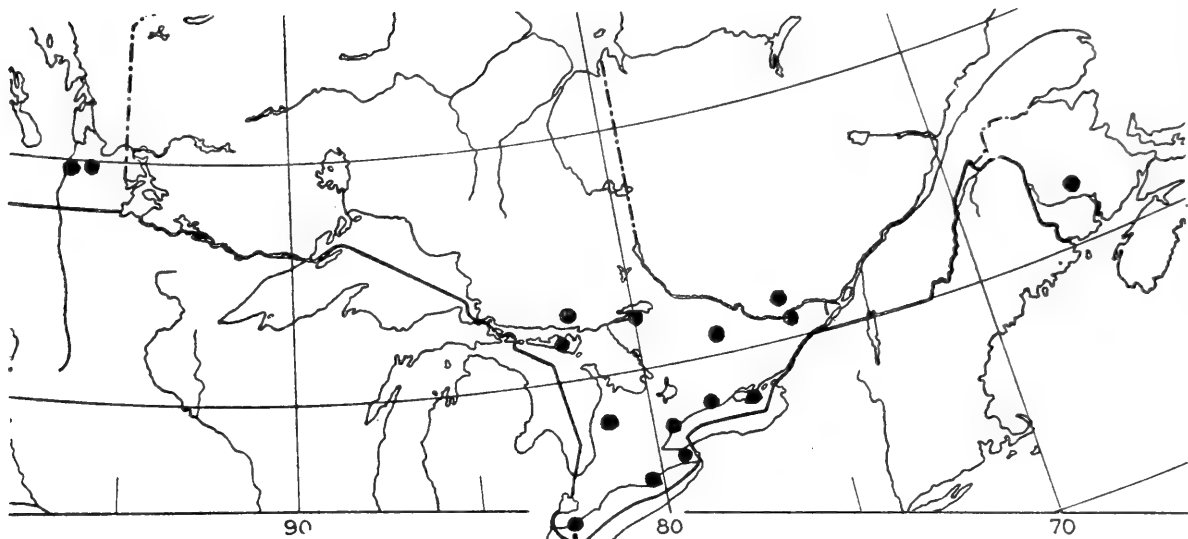
NORTHERN TREE FROG, GRAY TREE FROG, TREE TOAD

Range in Canada: Southeastern Manitoba, southern Ontario to New Brunswick, northern limits of range uncertain. Map 30.

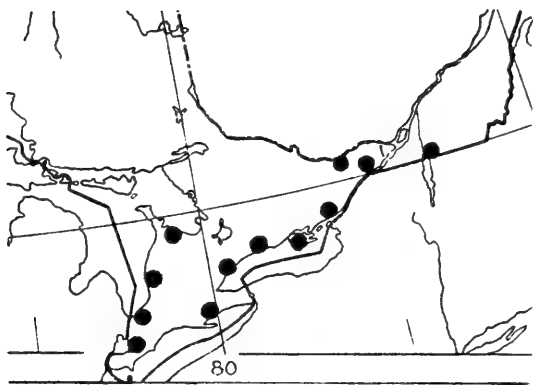
Canadian locality records: MANITOBA. Vivian, Winnipeg (ROMZP). NEW BRUNSWICK. York Co., Nashwaak River near Fredericton (ROMZP). ONTARIO. Carlton Co., Ottawa (Patch 1918, p. 53). Essex Co., Point Pelee (ROMZP). Grey Co., Hanover (ROMZP). Leeds Co., Gananoque (ROMZP). Lincoln Co., St. Catharines (Cope 1889, p. 376).



Map 29. Hyla regilla



Map 30. Hyla versicolor versicolor



Map 31. Pseudacris nigrita triseriata

Manitoulin Dist., Mindemoya (Manitoulin Island) (ROMZP). Nipissing Dist., Algonquin Park (ROMZP). Norfolk Co., Turkey Point (ROMZP). Northumberland Co., Baltimore (ROMZP). Parry Sound Dist., Franks Bay (ROMZP). Sudbury Dist., Auxable and Spanish rivers (ROMZP). York Co., Toronto (ROMZP). QUEBEC. Pontiac Co., Danford Lake (Bleakney 1954, MS, NMC).

Pseudacris nigrita triseriata Wied
WESTERN SWAMP TREE FROG

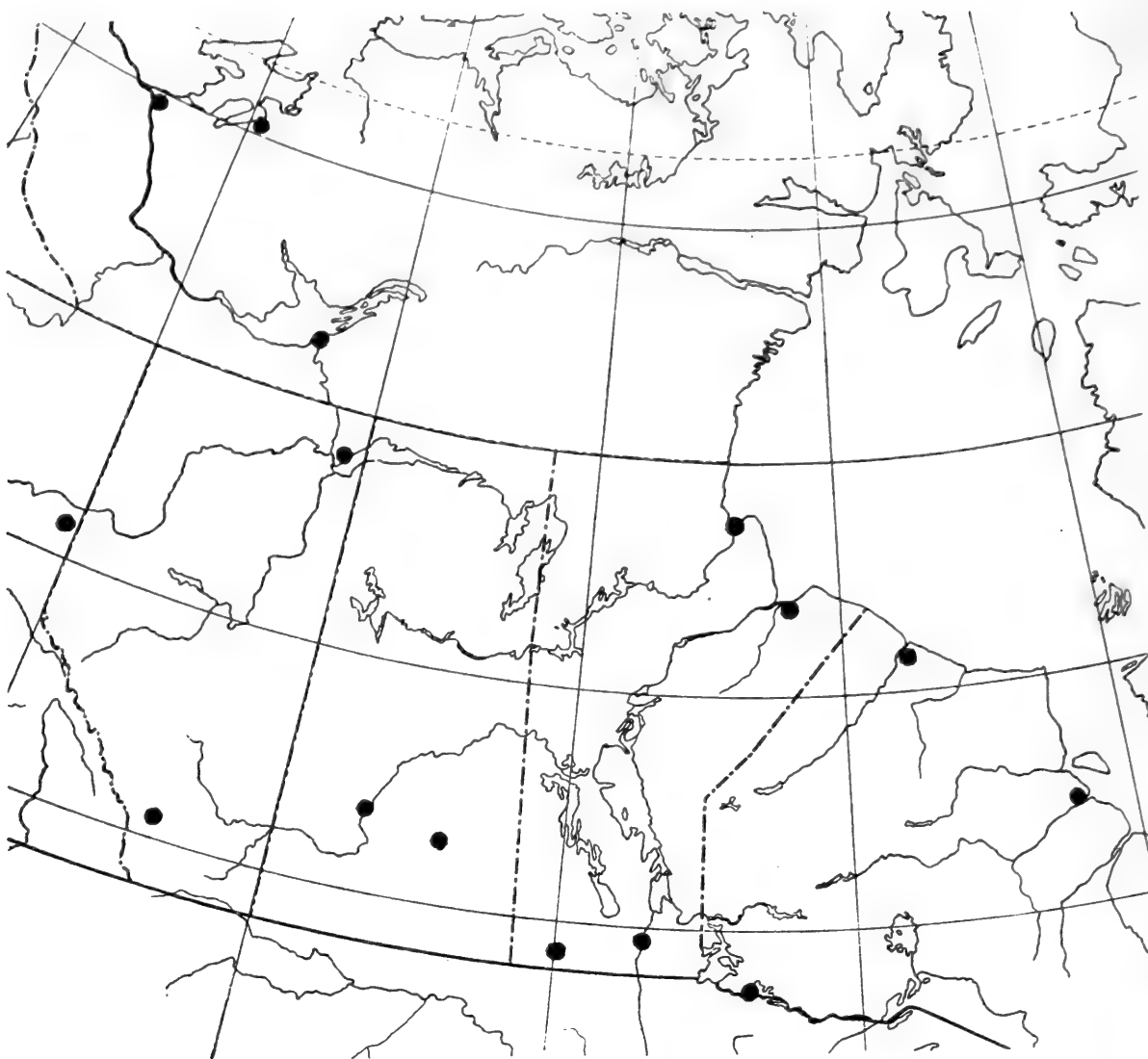
Range in Canada: Southern Ontario from Lake St. Clair and Lake Huron into southwestern Quebec to Lake Champlain. Map 31.

Canadian locality records: ONTARIO. Carlton Co., Ottawa (Bleakney 1954, MS, NMC). Durham Co., Darlington Twp. (Allin 1940, p. 111). Grey Co., Cape Rich (ROMZP). Huron Co., Londesborough (ROMZP). Kent Co., Lake St. Clair (ROMZP). Lambton Co., Thedford (ROMZP). Leeds Co., Gananoque (ROMZP). Norfolk Co., Port Dover (ROMZP). Prince Edward Co., Hallowell (ROMZP). Stormont Co., Monkland (Toner and de St. Remy 1941, p. 10). York Co., Toronto (ROMZP). QUEBEC. Missisquoi Co., Phillipsburg (Bleakney 1954, MS, NMC).

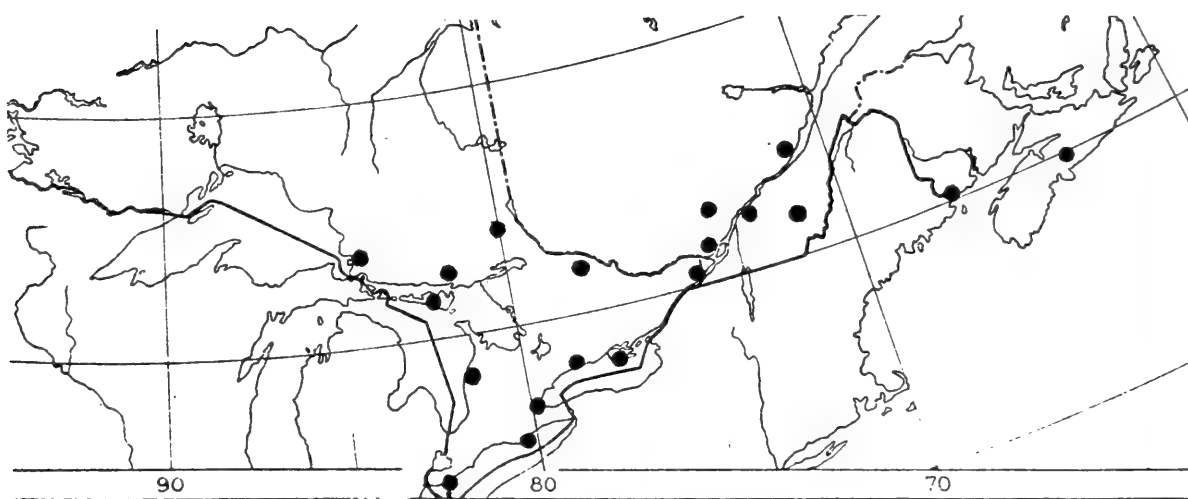
Pseudacris nigrita septentrionalis Boulenger
NORTHERN SWAMP TREE FROG

Range in Canada: From James Bay, York Factory, and Rainy River, Ontario, west through the Prairie Provinces to Peace River District, British Columbia, and northward to Great Bear Lake, Northwest Territories. Map 32.

Canadian locality records: ALBERTA. Fort Chipewyan (Harper 1931a, p. 68). High River (Fowler 1934, p. 139). BRITISH COLUMBIA. Peace River Dist., Charlie Lake, North Pine River (Carl 1943, p. 46). MANITOBA. Boissevain (Seton 1918, p. 81). Landing Lake near Churchill (Smith 1953, p. 181). Winnipeg (Seton 1918, p. 81). York Factory (Preble 1902, p. 134). NORTHWEST TERRITORIES. Fort Norman, Fort Resolution (Preble 1908, p. 501). Great Bear Lake (Boulenger 1882b, p. 335). ONTARIO. Cochrane Dist., Fort Albany (ROMZP). Patricia Dist., Fort Severn (ROMZP). Rainy River Dist., Emo (ROMZP). SASKATCHEWAN. Quill Lake (Schmidt 1938a, p. 377). Saskatoon (ROMZP).



Map 32. *Pseudacris nigrita septentrionalis*



Map 33. *Rana catesbeiana*

Family RANIDAE

Rana catesbeiana Shaw

BULLFROG

Range in Canada: From Ontario east of Lake Superior to Nova Scotia, northward in Ontario to southern Algoma District and Lake Timagami, and in Quebec to Montmorency County. Map 33.

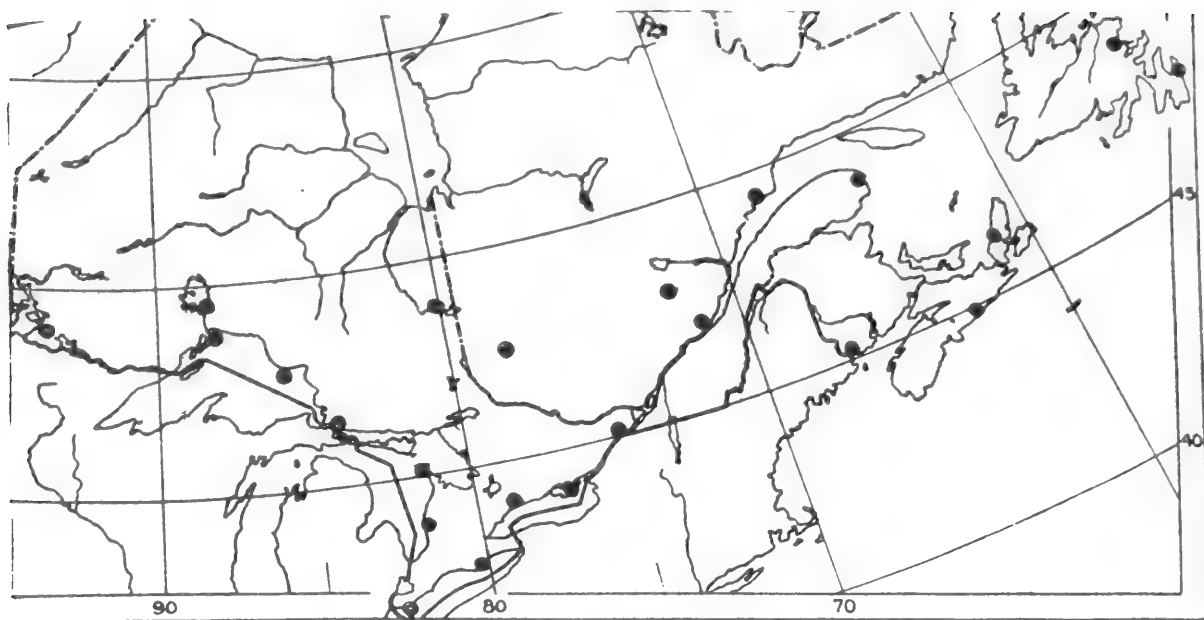
Canadian locality records: NEW BRUNSWICK. Charlotte Co., Chamcook Lake (ROMZP). NOVA SCOTIA. Halifax Co., Grand Lake (ROMZP). ONTARIO. Algoma Dist., Stony Lake near Heyden (Williamson 1907, p. 136). Bruce Co., Lucknow (ROMZP). Durham Co., Darlington Twp. (Allin 1940, p. 111). Essex Co., Point Pelee (Logier 1925, p. 92). Glengarry Co., Lake St. Francis (Toner and de St. Remy 1941 p. 10). Manitoulin Dist., Honora (Williams 1942, p. 93). Nipissing Dist., Lake Timagami (ROMZP). Norfolk Co., Long Point (Logier 1931, p. 232). Prince Edward Co., Hallowell (ROMZP). Renfrew Co., Petawawa (ROMZP). Sudbury Dist., Sudbury (ROMZP). Wentworth Co., Hamilton (Brown 1928, p. 126). QUEBEC. Megantic Co., Black Lake (Trapido and Clausen 1938, p. 121). Montmorency Co., St. Joachim (Provancher 1875, p. 19). Nicolet Co., Becancour (Provancher 1875, p. 19). Terrebonne Co., St. Jovite (Grant 1941, p. 153). Two Mountains Co., St. Augustine (Provancher 1875, p. 19).

Rana clamitans Latreille

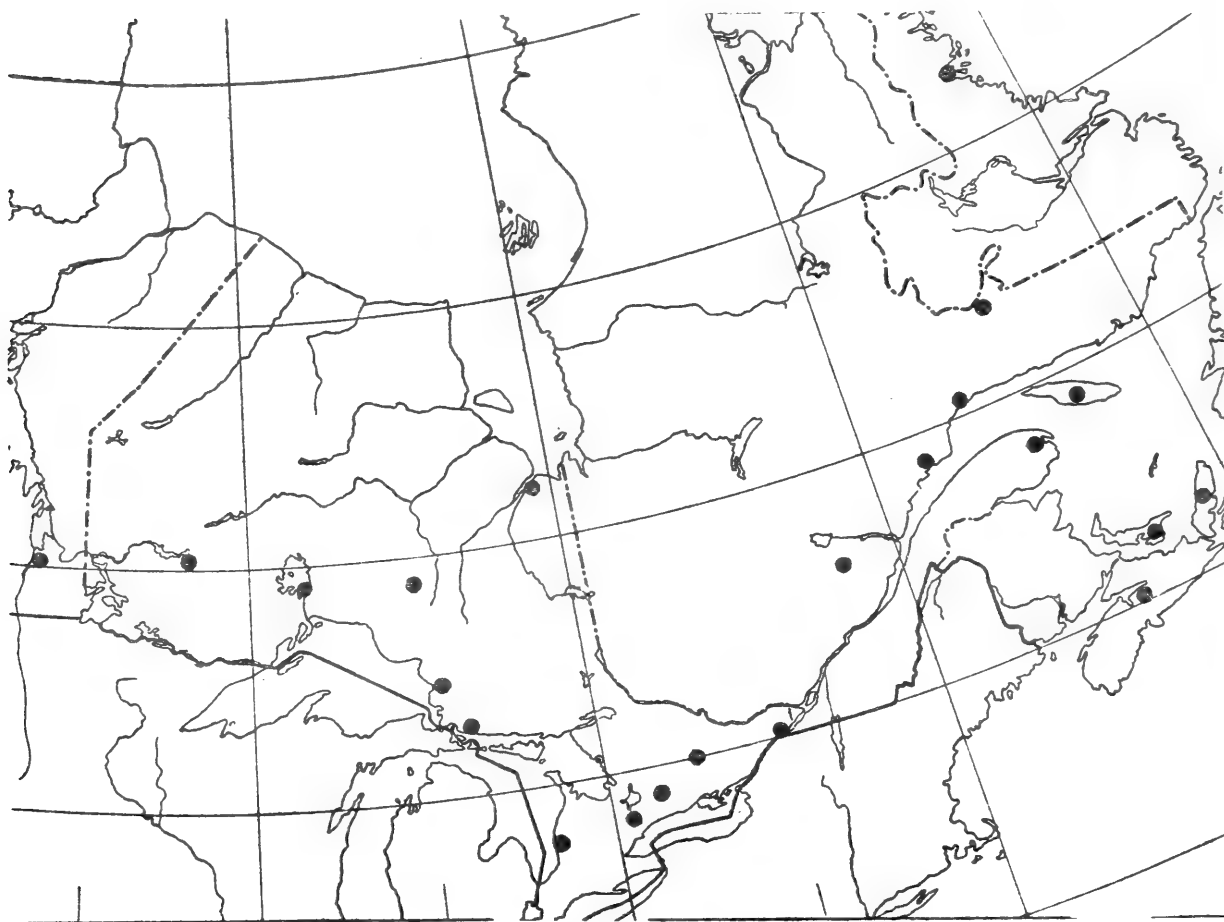
GREEN FROG

Range in Canada: From the Manitoba border of Ontario eastward to Cape Breton Island, Nova Scotia, north in Ontario and Quebec to about 50° Latitude. Introduced into Newfoundland at St. John's and Glovertown. Map 34.

Canadian locality records: NEWFOUNDLAND. Glovertown, at mouth of Terra Nova River (ROMZP). St. John's (10 miles south of) (ROMZP). NOVA SCOTIA. Halifax Co., Moser River (ROMZP). Inverness Co., Lake Ainslie (ROMZP). ONTARIO. Algoma Dist., Maclellan (ROMZP). Bruce Co., Johnstons Harbour, Lucknow (ROMZP). Cochrane Dist., Lake Abitibi (ROMZP). Durham Co., Bowmanville (ROMZP). Essex Co., Point Pelee (Logier 1925, p. 92). Glengarry Co., Bainsville (ROMZP). Norfolk Co., Turkey Point (ROMZP). Prince Edward Co., Picton (ROMZP). Rainy River Dist., Off Lake (ROMZP). Thunder Bay Dist., Lake Nipigon, Michipicoten Island, St. Ignace Island (ROMZP). QUEBEC. Gaspe Co., Gaspe (Trapido and Clausen 1938, p. 121). Laurentides National Park (ROMZP). Pontiac Co., near Wolf Lake (Grant 1941, p. 151). Quebec Co., Quebec (Cope 1889, p. 423). Saguenay Co., Godbout (ROMZP).



Map 34. Rana clamitans



Map 35. Rana septentrionalis

Rana septentrionalis Baird

MINK FROG

Range in Canada: From eastern Manitoba to Cape Breton Island, Nova Scotia; north in Ontario to James Bay, in Quebec to the Labrador border, and in Labrador to Okak; throughout the Maritime Provinces; Anticosti Island. Map 35.

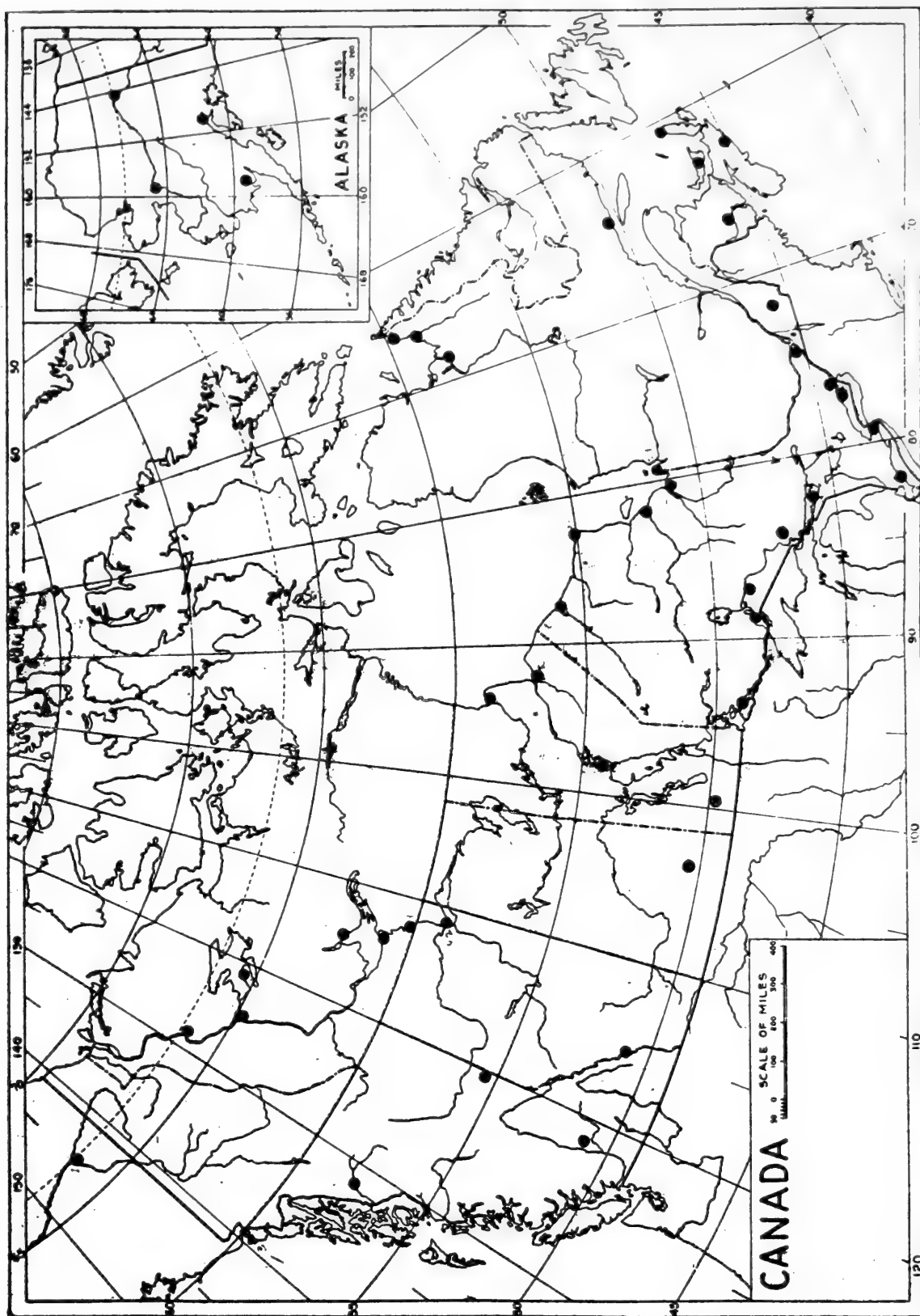
Canadian locality records: ANTICOSTI ISLAND. (Bleakney 1954, MS). LABRADOR. Okak (Packard 1866, p. 272). MANITOBA. Selkirk Settlement (Cope 1889, p. 419). NOVA SCOTIA. Hants Co. (Bleakney 1952, p. 126). Inverness Co., Upper Margaree River (ROMZP). ONTARIO. Algoma Dist., Desbarats (ROMZP). Bruce Co., Lucknow (ROMZP). Cochrane Dist., McCoig Twp., Moose Factory (ROMZP). Glengarry Co., Lake St. Francis (ROMZP). Kenora Dist., Sioux Lookout (ROMZP). Lennox and Addington Co., Buckshot Lake (ROMZP). Peterborough Co., Pigeon Lake (ROMZP). Thunder Bay Dist., Lake Nipigon (ROMZP). York Co., Kelly Lake in King Twp. (ROMZP). PRINCE EDWARD ISLAND. Kings Co., Dundee (Fowler 1915, p. 518). QUEBEC. Gaspe Peninsula (Cox 1899b, p. 194). Laurentides National Park (Vladykov, 1941, p. 84). Saguenay Co., Godbout (ROMZP). Mile 134, Sept Isles (Bleakney 1954, MS, NMC).

Rana sylvatica LeConte

WOOD FROG

Range in Canada and Alaska: Nearly all of the land area south of the arctic circle. Northward to 60° Latitude east of 110° Longitude and to the arctic circle west of it. Map 36.

Canadian and Alaskan locality records: ALASKA. Cook Inlet (Osgood 1901b, p. 57). Fort Yukon (Cope 1889, p. 437). Lake Aleknagik (Cope 1886, p. 520). Nulato River (Cope 1889, p. 437). Yakutat (ROMZP). ALBERTA. Athabaska Lake (ROMZP). Banff (Boulenger 1920, p. 457). BRITISH COLUMBIA. Cassiar Dist., Telegraph Creek (Patch 1939, p. 235). Lillooet Dist., Clinton (vicinity of) (Carl 1943, p. 51). Peace River Dist., Tupper Creek (Cowan 1939, p. 92). LABRADOR. George River (Hildebrand 1949, p. 168). Natsitok (Hantzsch, 1931, p. 89). MANITOBA. Carberry, Fort Churchill (ROMZP). York Factory (Preble 1902, p. 133). NEW BRUNSWICK. York Co., Fredericton (ROMZP). NORTHWEST TERRITORIES. Fort Good Hope, Fort Norman, Fort Resolution (Preble 1908, p. 501). Fort Smith (Boulenger 1882b, p. 45). Great Bear Lake (Gunther 1858a, p. 17). Yellowknife (ROMZP). NOVA SCOTIA. Halifax Co., Moser River (ROMZP). Inverness Co., Upper Margaree River (ROMZP). Victoria Co., Cape North (Patch 1939, p. 235). ONTARIO. Algoma Dist., Searchmount (Williamson 1907, p. 136). Cochrane Dist., Fort Albany, Moosonee (ROMZP). Frontenac Co., Kingston (Toner and de St. Remy 1941, p. 13). Glengarry Co., Bainsville (ROMZP). Kent Co., Rondeau Park (ROMZP). Lincoln Co., St. Catharines (Yarrow 1882, p. 186). Mani-



Map 36. *Rana sylvatica*

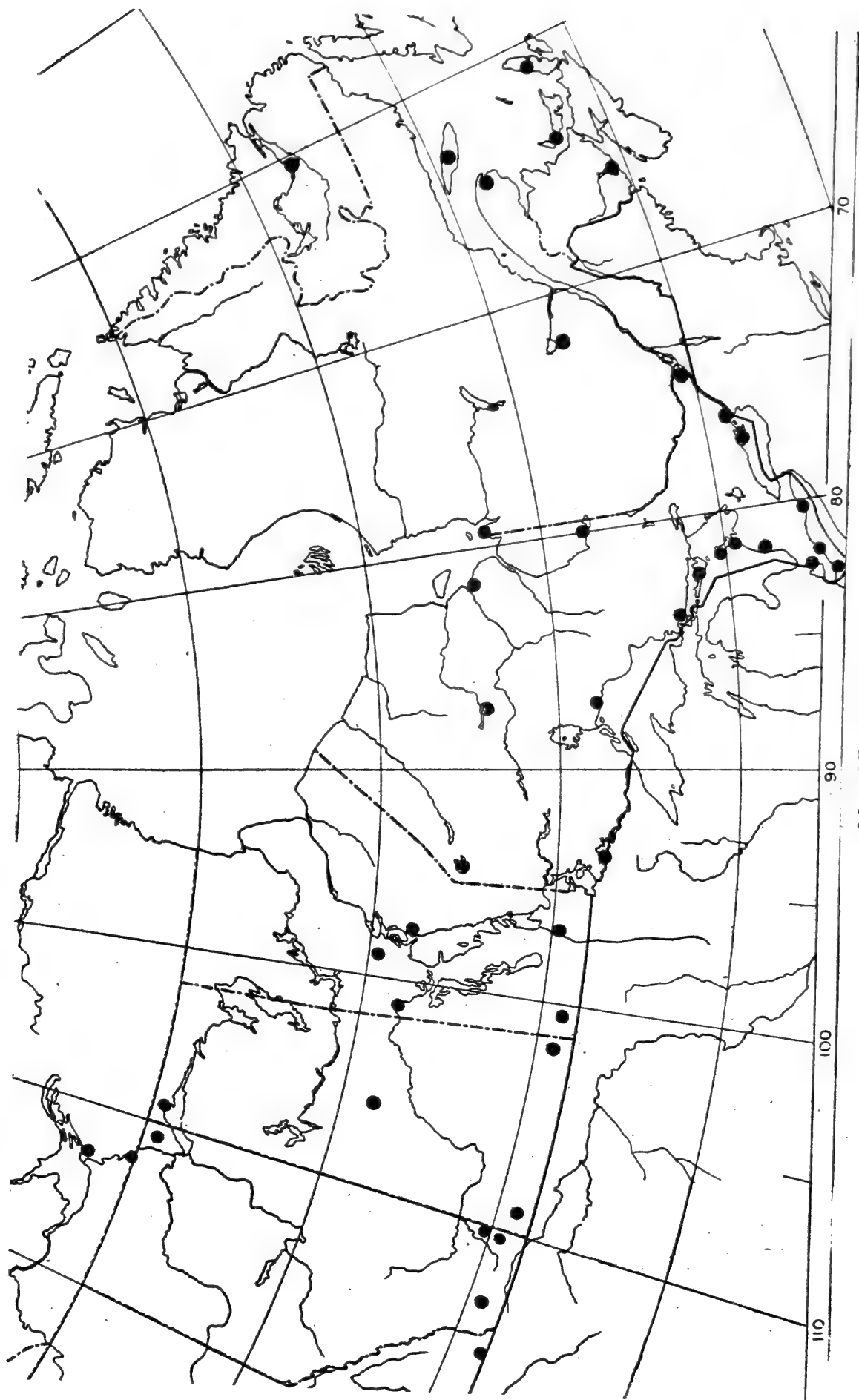
toulin Dist., Mindemoya (ROMZP). Patricia Dist., Cape Henrietta Maria, Fort Severn (ROMZP). Prince Edward Co., Hallowell, Picton (ROMZP). Rainy River Dist., Off Lake (ROMZP). Thunder Bay Dist., Silver Islet (Patch 1939, p. 235). Slate Island (ROMZP). PRINCE EDWARD ISLAND. Queens Co., Charlottetown (Fowler 1915, p. 518). QUEBEC. Abitibi Dist., Point Comfort (ROMZP). Saguenay Dist., Mingan Island (PC: A. Loveridge, MCZ). Sherbrook Co., Sherbrook (Trapido and Clausen 1938, p. 122). Ungava Dist., Fort Chimo (Dunbar 1949, pp. 9-10, NMC). George River (Hildebrand 1949, p. 168). Natsitok (Hantzsch 1931, p. 89). SASKATCHEWAN. Indian Head (ROMZP).

Rana pipiens Schreber

LEOPARD FROG

Range in Canada: From Nova Scotia and Lake Melville, Labrador, westward through the Maritimes, Quebec, Ontario, and the Prairie Provinces to southeastern British Columbia and Great Slave Lake, Northwest Territories. Map 37.

Canadian locality records: ALBERTA. Elkwater Lake, Lethbridge (ROMZP). Medicine Hat (PC: A. Loveridge, MCZ). Tazin Highlands (Harper 1931b, p. 29). ANTICOSTI ISLAND. (PC: A. Loveridge, MCZ). BRITISH COLUMBIA. Kootenay Dist., Loon Lake near Newgate (Carl 1943, p. 53). LABRADOR. Lake Melville Dist., Grand River (Bleakney 1954, MS, NMC). Mud Lake, mouth of Hamilton River, Rabbit Island in Goose Bay (Backus 1954, p. 227). MANITOBA. Norway House (Preble 1902, p. 133). Souris, The Pas, Waboden (ROMZP). Winnipeg (Seton 1918, p. 80). NEW BRUNSWICK. St. John Co., St. John (PC: A. Loveridge, MCZ). NORTHWEST TERRITORIES. Fort Smith (ROMZP). Talston River (Harper 1931a, p. 69). NOVA SCOTIA. Inverness Co., Upper Margaree River (ROMZP). ONTARIO. Algoma Dist., MacLennan (ROMZP). Bruce Co., Johnstons Harbour, Lucknow, Red Bay (ROMZP). Cochrane Dist., Fort Albany, Lake Abitibi (ROMZP). Essex Co., Pelee Island (Jones 1912, p. 103). Point Pelee (Logier 1925, p. 92, SC). Frontenac Co., Kingston (Klugh 1922a, p. 14). Glengarry Co., Lancaster (Toner and de St. Remy, 1941, p. 12). Kent Co., Lake St. Clair, Rondeau Park (ROMZP). Manitoulin Dist., Mindemoya (ROMZP). Norfolk Co., Long Point (ROMZP). Patricia Dist., Favourable Lake, Lake Attawapiskat (ROMZP). Prince Edward Co., Hallowell (ROMZP). Rainy River Dist., Emo (ROMZP). Thunder Bay Dist., Schreiber (ROMZP). PRINCE EDWARD ISLAND. Prince Co., Lot 16 (ROMZP). QUEBEC. Abitibi Dist., Point Comfort (ROMZP). Gaspe Peninsula (Cox 1899a, p. 152). Roberval Co., Val Jalbert (Trapido and Clausen 1938, p. 121). SASKATCHEWAN. Carlyle Lake, Cypress Lake (ROMZP). Tazin Highlands (Harper 1931b, p. 29). Waskesiu Lake (ROMZP).



Map 37. Rana pipiens

Rana palustris LeConte
PICKEREL FROG

Range in Canada: From Cape Breton Island, Nova Scotia, through the Maritimes, Quebec, and Ontario to eastern Manitoba. Map 38.

Canadian locality records: MANITOBA. Mouth of Nelson River* (Preble 1902, p. 133, USNM). NEW BRUNSWICK. St. John Co., St. John (PC: A. Loveridge, MCZ). York Co., Fredericton (ROMZP). NOVA SCOTIA. Halifax Co., Moser River (ROMZP). Inverness Co., Upper Margaree River (ROMZP). Yarmouth Co. (PC: A. Loveridge, MCZ). ONTARIO. Algoma Dist., Hayden (Williamson 1907, p. 136). Bruce Co., Bruce Peninsula, Lucknow (ROMZP). Cochrane Dist., James Bay* (Preble 1902, p. 133). Frontenac Co., Kingston (Toner and de St. Remy 1941, p. 10). Glengarry Co., Alexandria (ROMZP). Lincoln Co., St. Catharines (ROMZP). Norfolk Co., Turkey Point (ROMZP). Prince Edward Co., Cressy (Logier 1941, p. 98). Sudbury Dist., Chapleau (Meek and Clark 1902, p. 139). York Co., Toronto (ROMZP). PRINCE EDWARD ISLAND. (Cox 1899b, p. 194). QUEBEC. Bonaventure Co., Cascapedia (Moore and Moore 1939, p. 104). Gaspe Co., Grand Pabos River (Cox 1899b, p. 194). Gatineau Co., Alcove (ROMZP).

* A question of provenance may exist in connection with these specimens; all other localities of record known to the authors are south of 49° Latitude.
The precise locality of the James Bay specimen is not known to us.

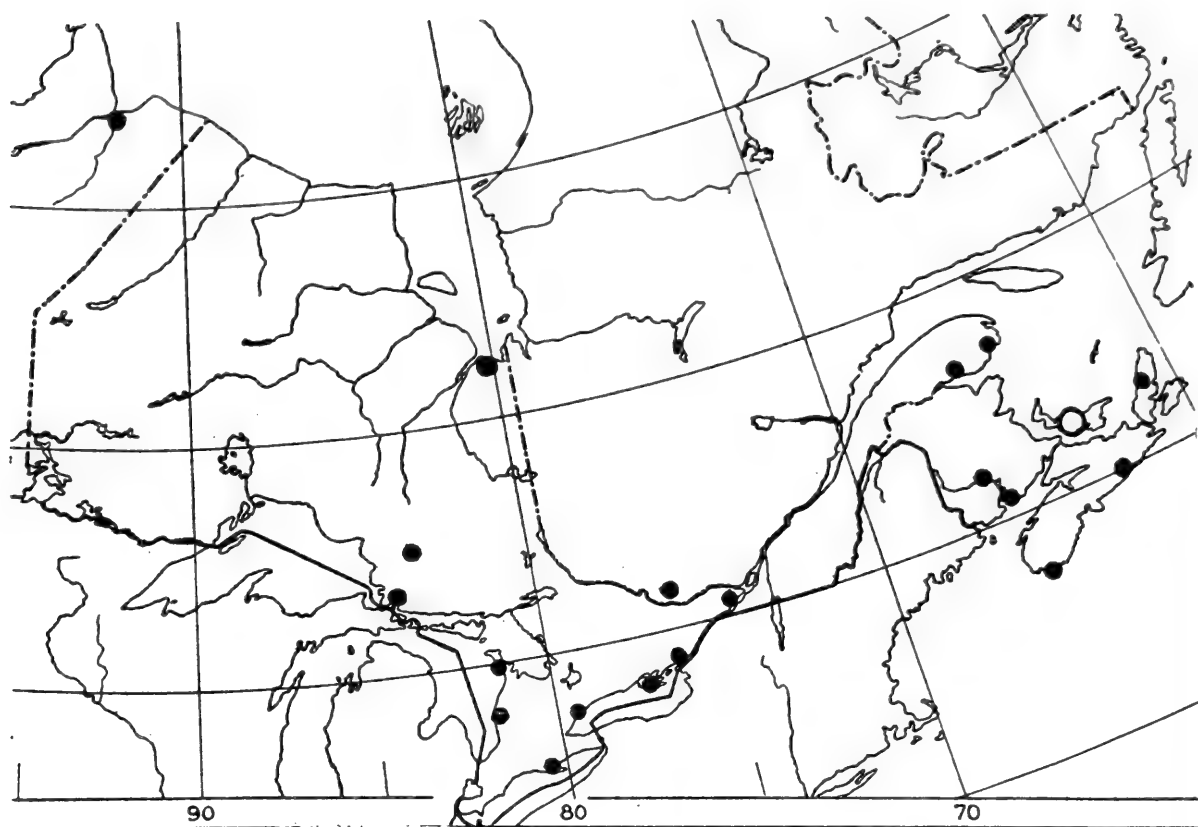
Rana aurora aurora Baird and Girard
RED-LEGGED FROG

Range in Canada: Southwestern British Columbia including Vancouver Island. Map 39.

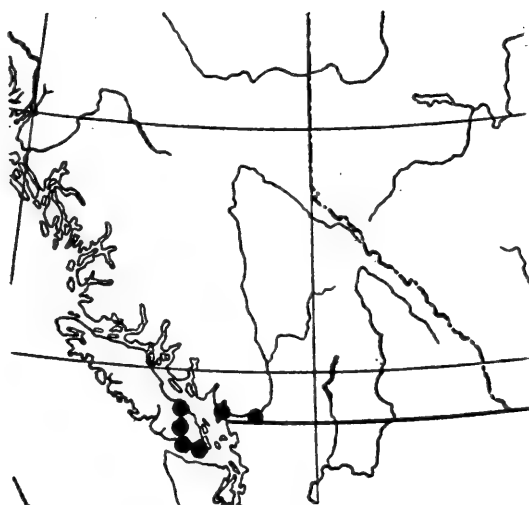
Canadian locality records: MAINLAND. New Westminster Dist., Vancouver (ROMZP). Vedder Crossing (Kermode 1928, p. E19). VANCOUVER ISLAND. Cowichan Lake Dist., Cowichan Lake (Cowan 1937, p. K19, PMBC). Goldstream Dist., Goldstream (ROMZP). Nanaimo Dist., Nanaimo (ROMZP). Renfrew Dist., Port Renfrew (Cowan 1937, p. K19, PMBC).

Rana pretiosa pretiosa Baird and Girard
WESTERN SPOTTED FROG

Range in Canada and Alaska: From the Stikine River, Alaska, and Lake Bennett, British Columbia, southward to the International Border, and eastward into central Saskatchewan. Map 40.



Map 38. Rana palustris



Map 39. Rana aurora aurora

Canadian and Alaskan locality records: ALASKA. Sergeif Island (Slevin 1928, p. 135). Length of the Stikine River in Alaska (Swarth 1936, p. 77). ALBERTA. Banff (ROMZP). Jasper (Patch 1929, p. 138, NMC). Pipestone Creek, Waterton National Park (ROMZP). BRITISH COLUMBIA. Cassiar Dist., Driftwood Valley (Stanwell-Fletcher 1940, p. 137). Lake Bennett (Carl 1943, p. 50). Seton Creek (Cowan 1937, p. K20, PMBC). Telegraph Creek (Storer 1925, p. 272). Coast Dist., Range 3, Chezacut Lake (ROMZP). Kamloops Dist., Lytton (ROMZP). New Westminster Dist., Sumas Prairie (Boulenger 1882, pp. 43-4). Similkameen Dist., Christina Lake (ROMZP). SASKATCHEWAN. Waskesiu Lake (ROMZP).

Class REPTILIA

Order CHELONIA

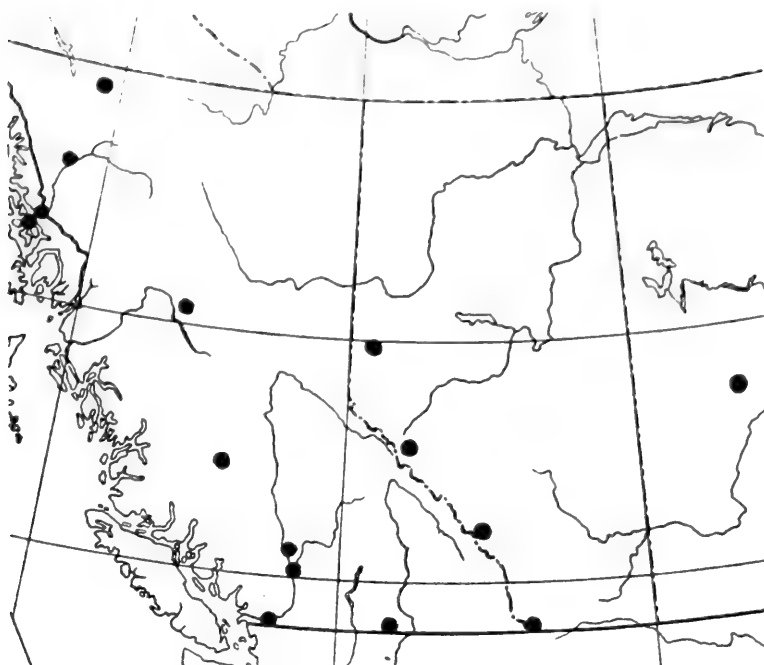
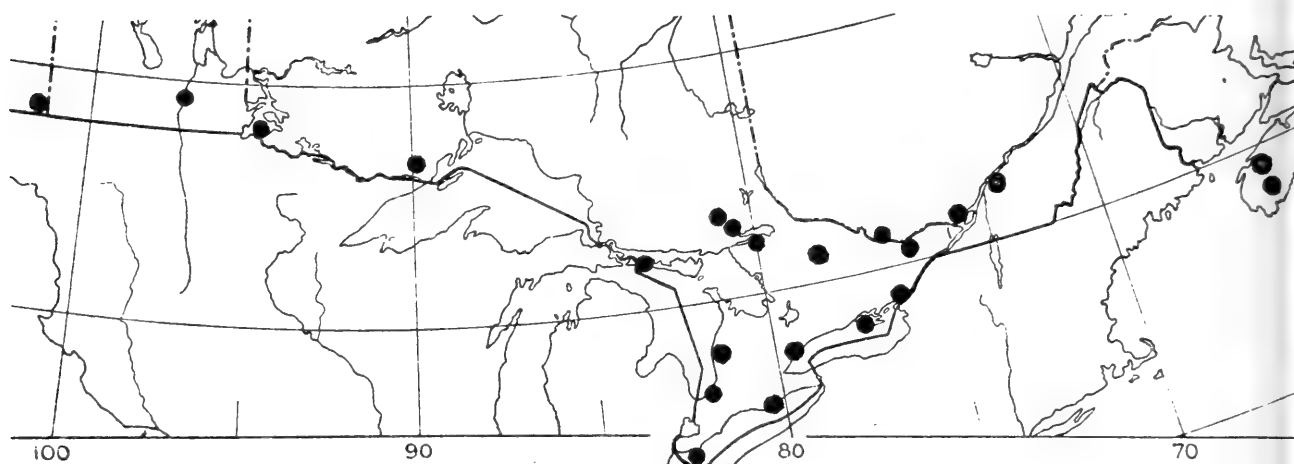
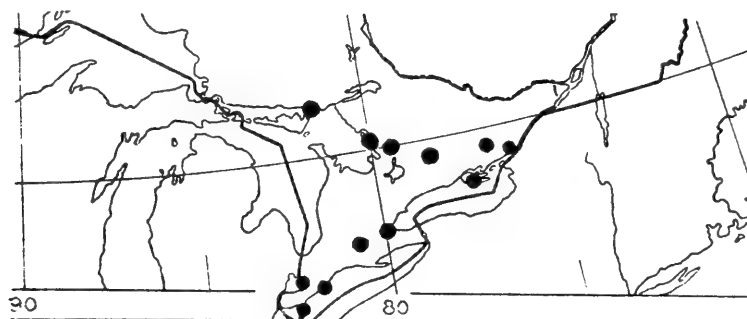
Family CHELYDRIDAE

Chelydra serpentina serpentina Linnaeus

SNAPPING TURTLE

Range in Canada: Through southern Canada from southeastern Saskatchewan to Nova Scotia, but not Cape Breton Island. Northward to about 50° Latitude on the prairies and to about 46° Latitude in eastern Ontario and Quebec. Map 41.

Canadian locality records: MANITOBA. Winnipeg (ROMZP). NOVA SCOTIA. Annapolis Co., Annapolis Valley (Bleakney 1952, p. 127). Queens Co., Lake Resignol (Jones 1865, p. 117). ONTARIO. Carlton Co., Ottawa (Patch 1918, p. 53). Essex Co., Pelee Island and Point Pelee (ROMZP). Huron Co., Wingham (ROMZP). Kenora Dist., Lake-of-the-Woods (Boulenger 1889, p. 23). Lambton Co., Port Franks (ROMZP). Leeds Co., Gananoque (ROMZP). Manitoulin Dist., Cockburn Island (PC: W. B. Scott). Nipissing Dist., Algonquin Park (ROMZP). Norfolk Co., Long Point (ROMZP). Parry Sound Dist., Franks Bay (ROMZP). Prince Edward Co., Hallowell (ROMZP). Sudbury Dist., Milnet (PC: J. H. Crysdale, photographs). Nepewassi Lake south of Hagar (ROMZP). Thunder Bay Dist., Adrian Twp. (Logier 1939, p. 47). York Co., Toronto (ROMZP). QUEBEC. Nicolet Co., Lac St. Paul a Becancour (Provancher 1874, p. 297). Pontiac Co., Norway Bay (Patch 1925, p. 95). Vaudreuil Co., Vaudreuil (PC: Frere Alexander). SASKATCHEWAN. Souris River (Criddle 1919, p. 135).

Map 40. Rana pretiosa pretiosaMap 41. Chelydra serpentina serpentinaMap 42. Sternotherus odoratus

Family KINOSTERNIDAE

Sternotherus odoratus Latreille

COMMON MUSK TURTLE

Range in Canada: Apparently restricted to southern Ontario from Manitoulin District and Essex County eastward. Map 42.

Canadian locality records: ONTARIO. Essex Co., Point Pelee (Patch 1919, p. 61). Frontenac Co., Arden (ROMZP). Kent Co., Lake St. Clair (Garnier 1881, p. 37). Rondeau Bay (ROMZP). Leeds Co., Gananoque Lake (ROMZP). Manitoulin Dist., McGregor Bay (ROMZP). Oxford Co. (PC: R. V. Lindsay). Parry Sound Dist., Parry Sound (ROMZP). Peterborough Co., Stony Lake (PC: J. Land). Prince Edward Co., Wellington (ROMZP). Wentworth Co., Hamilton (Brown 1928, p. 127).

Family EMYDIDAE

Clemmys guttata Schneider

SPOTTED TURTLE

Range in Canada: Apparently restricted to southwestern Ontario from the Lake Erie counties north to Bruce Peninsula and Parry Sound District. Map 43.

Canadian locality records: ONTARIO. Bruce Co., Oliphant (PC: W. J. Dowkes). Essex Co., Point Pelee (ROMZP). Grey Co., Durham (PC: L. H. Beamer). Owen Sound (PC: W. J. Dowkes). Kent Co., Rondeau Park (ROMZP). Muskoka Dist., Go Home Bay (Logier 1939, p. 49). Norfolk Co., Turkey Point (ROMZP). Parry Sound Dist., Franklin Island (ROMZP). Welland Co., Fort Erie (Wright 1918, p. 56).

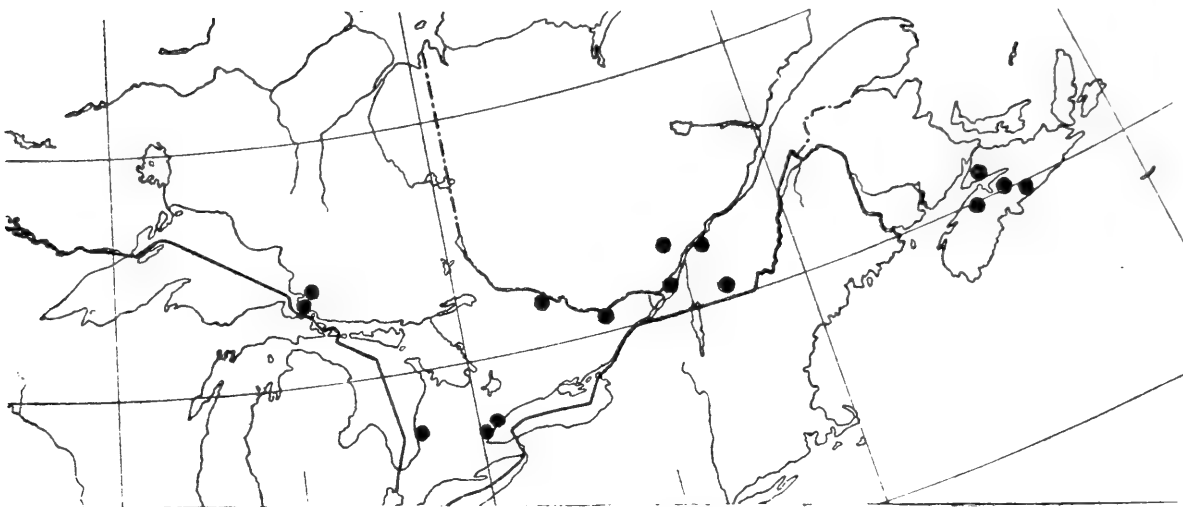
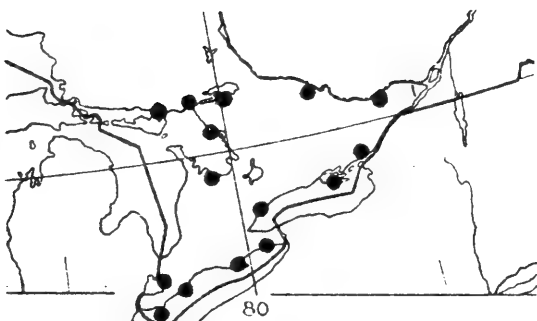
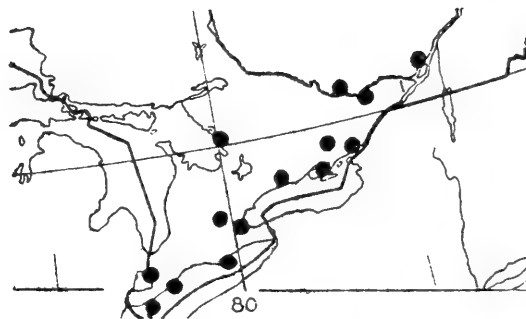
Note: Provancher (1874, p. 295) reported this turtle from two Quebec Province localities, viz., Nicolet Co., Nicolet, and Quebec Co., Quebec. We are unable to comment on these except to remark that they appear to be out of range. They are indicated on the map by open triangles instead of solid black circles.

Clemmys marmorata marmorata Baird and Girard

PACIFIC POND TURTLE

Range in Canada: Extreme southwestern British Columbia.

Canadian locality records: BRITISH COLUMBIA. New Westminster Dist., Vancouver (Carl 1951, p. 48).

Map 43. Clemmys guttataMap 44. Clemmys insculptaMap 45. Emys blandingiMap 46. Graptemys geographica

Note: Carl (loc. cit.) states that in British Columbia it is known by only two specimens, one collected near Burnaby Lake, Vancouver, in 1933, and one taken in a slough on the Jericho Golf Links.

Clemmys insculpta LeConte

WOOD TURTLE

Range in Canada: From Algoma District, Ontario, eastward to Nova Scotia, south of 47° Latitude. Map 44.

Canadian locality records: NOVA SCOTIA. Cumberland, Halifax, Hants, and Kings counties (Bleakney 1952, p. 127). ONTARIO. Algoma Dist., Gurlais River (ROMZP). Searchmount (Williamson 1907, p. 138). Carlton Co., Ottawa (PC: C. L. Patch). Halton Co., Bronte Creek, near Tansley (ROMZP). Huron Co., Clinton (ROMZP). Holmesville (LeRay 1935, p. 109). Renfrew Co., Chalk River and Petawawa Military Reserve (ROMZP). York Co., Thistletown (ROMZP). Toronto (Ure 1858, p. 58), from Humber River (SS). QUEBEC. Jacques Cartier Co., Lachine (PC: Frere Alexander). Joliette Co., Black Lake (PC: C. L. Patch). Nicolet Co., St. Gertrude (Provancher 1874, p. 296). Sherbrook Co., Sherbrook (PC: C. L. Patch).

Emys blandingi Holbrook

BLANDING'S TURTLE, SEMI-BOX TURTLE

Range in Canada: Southern Ontario from Manitoulin District and Essex County eastward to Ottawa. Map 45.

Canadian locality records: ONTARIO. Carlton Co., Ottawa (Patch 1937, p. 4). Essex Co., Pelee Island (Jones 1912, p. 103). Point Pelee (ROMZP). Grey Co., Meaford (PC: L. H. Beamer). Haldimand Co., Port Maitland (Brown 1927, p. 185). Kent Co., Mitchells Bay (SS). Rondeau Park (ROMZP). Leeds Co., Gananoque Lake (ROMZP). Manitoulin Dist., La Cloche Island (ROMZP). Norfolk Co., Long Point (ROMZP). Parry Sound Dist., Franklin Island, Franks Bay (ROMZP). Prince Edward Co., Hallowell (ROMZP). Renfrew Co., Petawawa Reserve (ROMZP). Sudbury Dist., Bigwood (ROMZP). York Co., Toronto region (ROMZP).

Graptemys geographica Le Sueur

COMMON MAP TURTLE

Range in Canada: Waters of lakes Erie, Ontario, and Huron, and Georgian Bay, also

certain rivers and small lakes in the Lower Lakes drainage system. Map 46.

Canadian locality records: ONTARIO. Carleton Co., Ottawa (Patch 1937, p. 4). Essex Co., Point Pelee (ROMZP). Frontenac Co., Cranberry Lake, Dog Lake (Toner 1936, p. 236). Kent Co., Mitchells Bay (SS). Rondeau Park (ROMZP). Leeds Co., Charleston Lake (Toner 1936, p. 236). Gananoque Lake (ROMZP). Muskoka Dist., Go Home Bay (ROMZP). Norfolk Co., Long Point (ROMZP). Northumberland Co., Rice Lake (ROMZP). Prince Edward Co., Bay of Quinte (ROMZP). Wellington Co., Guelph (Patch 1925, p. 95). Wentworth Co., Hamilton Bay (Brown 1928, p. 127). QUEBEC. Laval Co., Genevieve (PC: Frere Alexander). Pontiac Co., Norway Bay (Patch 1925, p. 95).

Chrysemys picta picta Schneider
EASTERN PAINTED TURTLE

Range in Canada: From Nova Scotia westward through New Brunswick and Quebec to about the longitude of Lake Champlain. Map 47.

Canadian locality records: NOVA SCOTIA. Annapolis Co., Annapolis Valley (Bleakney 1952, p. 127). Guysborough Co., West River St. Mary's (Bleakney 1952, p. 127). Halifax Co., Gay River, Musquodobit Valley (Bleakney 1952, p. 127). Kings Co., Wolfville (PC: C. L. Patch, NMC). QUEBEC. Nicolet Co., Becancour, Nicolet (Provancher 1874, p. 295). Quebec Co., Quebec (Provancher 1874, p. 295). Temiscouata Co., St. Rose (PC: Frere Alexander).

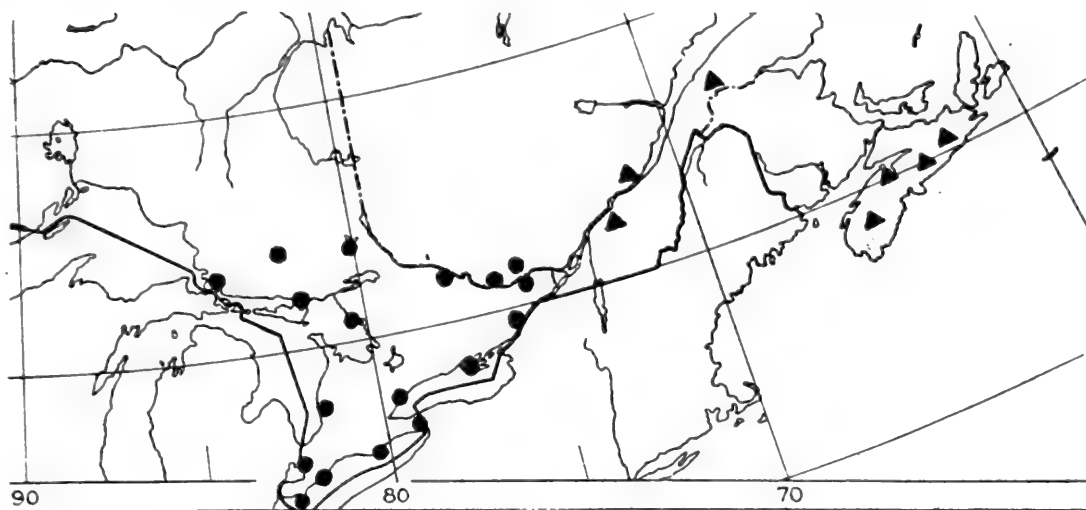
Chrysemys picta marginata Agassiz
CENTRAL or MIDLAND PAINTED TURTLE

Range in Canada: All of southern Ontario from the Lower Lakes northward to southern Algoma District, Biscotasing, and Lake Timagami, eastward into western Quebec. Map 47.

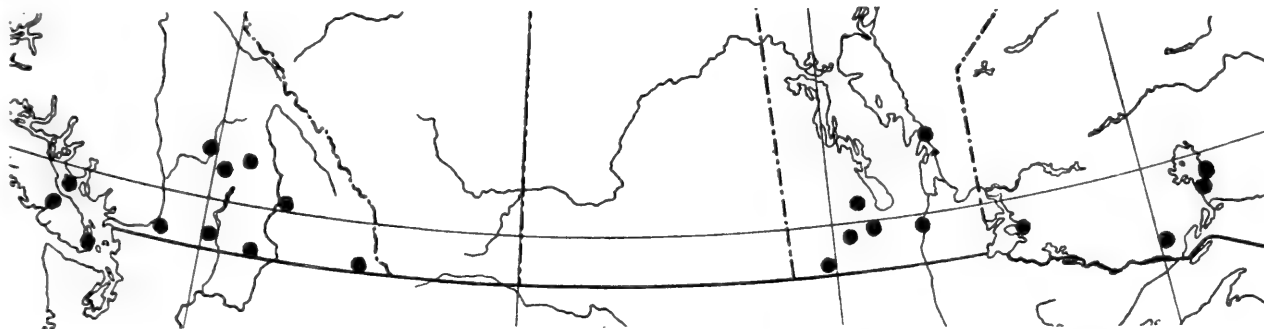
Canadian locality records: ONTARIO. Algoma Dist., Maclellan (ROMZP). Carleton Co., Ottawa (Patch 1918, p. 53). Essex Co., Pelee Island, Point Pelee (ROMZP). Huron Co., Seaforth (ROMZP). Kent Co., Mitchells Bay, Rondeau Park (ROMZP). Leeds Co., Gananoque (ROMZP). Manitoulin Dist., LaCloche Island (Williams 1942, p. 93). Nipissing Dist., Lake Timagami (ROMZP). Norfolk Co., Long Point (ROMZP). Parry Sound Dist., Franklin Island (ROMZP). Prince Edward Co., Hallowell (ROMZP). Renfrew Co., Petawawa (ROMZP). Sudbury Dist., Biscotasing (ROMZP). Welland Co., Niagara Falls (ROMZP). York Co., Toronto (SS). QUEBEC. Gatineau Co., Masham Mills (ROMZP). Pontiac Co., Norway Bay (Patch 1925b, p. 96).

Correction of range

The Ste. Rose record of Chrysemys picta picta, cited (page 48) and mapped (map 47) as from Temiscouata County, should be referred to Laval County. Our mistake.



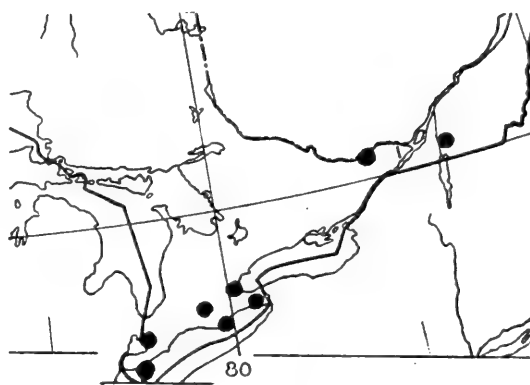
Map 47. Chrysemys picta picta ▲
Chrysemys picta marginata ●



Map 48. Chrysemys picta belli



Map 49. Leptochelys olivacea kempii



Map 50. Trionyx ferox spinifera

Chrysemys picta belli Gray
WESTERN PAINTED TURTLE

Range in Canada: From Lake Nipigon, Ontario, westward through southern Canada south of 52° Latitude to Vancouver Island. Map 48.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. Kamloops Dist., Genier Lakes (Carl 1951, p. 48). Monte Lake (Cowan 1937, p. K23). Shuswap Lake (Carl 1951, p. 48). Kootenay Dist., Loon Lake near New Gate, Summit Lake (Cowan 1937, p. K23). New Westminster Dist., Pender Harbour (Cowan 1937, p. K23, PMBC). Similkameen Dist., Grand Forks (Thacker 1924, p. 164). Green Lake (ROMZP). Osoyoos Lake (Cowan 1937, p. K23). Vaseaux Lake (Cowan 1937, p. K23). Yale Dist., Hope (released) (Storer 1937, p. 66). COASTAL ISLANDS. Texada Island Dist., Texada Island (Priest Lake) (Carl 1951, p. 48). VANCOUVER ISLAND. Alberni Dist., Alberni (Storer 1932, p. 9). Patterson Lake (Cowan 1937, p. K23). MANITOBA. Austin (Seton 1918, p. 81). Bloodvein region of Lake Winnipeg (PC: Sam Waller). Boissevain, Carberry (Seton 1918, p. 81). Rice Lake at Onah (Criddle 1919, p. 135). Riding Mountain, Winnipeg (Seton 1918, p. 81). ONTARIO. Kenora Dist., Whitefish Bay (PC: W. H. Bennett). Thunder Bay Dist., Blackwater River and Orient Bay at Lake Nipigon, Whitefish Lake (ROMZP).

Family CHELONIDAE

Leptochelys olivacea kempi Garman
ATLANTIC RIDLEY

Range in Canada: Off the Nova Scotia and Newfoundland coasts as a rare northward straggler. Map 49.

Canadian locality records: NEWFOUNDLAND. Trinity Bay, *Dunfield (Squires 1955, p. 68). NOVA SCOTIA. Annapolis Co., in Bay of Fundy near Margaretsville (Bleakney 1955, p. 137, NSMS). Halifax Co., Spry Harbour (Bleakney 1955, p. 137, NSMS). Lunenburg Co., Lahave Island (PC: C. L. Patch, NMC).

* Report by fishermen, specimen not examined.

Caretta caretta caretta Linnaeus
ATLANTIC LOGGERHEAD TURTLE

Range in Canada: Coastal waters south of 44° Latitude.

Canadian locality records: Grand Banks at 43° 24' N, 51° 15' W, a single winter record trawled from 100 fathoms in January 1953 (Squires 1955, p. 68).

Family TRIONYCHIDAE

Trionyx ferox spinifera Le Sueur

EASTERN SPINY SOFT-SHELLED TURTLE

Range in Canada: Southern Ontario from lakes St. Clair and Erie to western Quebec at the Richelieu River and Lake Champlain. Map 50.

Canadian locality records: ONTARIO. Carleton Co., *Ottawa (PC: C. L. Patch, NMC). Essex Co., Point Pelee (Logier 1939, p. 56). Haldimand Co., Dunville (Logier 1939, p. 56, SR). Kent Co., Lake St. Clair (Garnier 1881, p. 37). Norfolk Co., Long Point (ROMZP). Oxford Co., Beachville (Logier 1939, p. 56). Wentworth Co., Hamilton Bay (SR). QUEBEC. Iberville Co., Richelieu River at Iberville (PC: Frere Alexander).

* Two specimens from the old Fisheries Museum, labelled "Ottawa". There may be some question of provenance here, so the record should be accepted with reserve unless or until supported by further evidence.

Family DERMOCHELIDAE

Dermochelys coriacea coriacea Linnaeus

ATLANTIC LEATHERBACK TURTLE

Range in Canada: Off the Nova Scotian coast; occasional.

Canadian locality records: NOVA SCOTIA. Halifax Co., Halifax (Piers 1890, p. 470).

Dermochelys coriacea schlegeli Garman

PACIFIC LEATHERBACK TURTLE

Range in Canada: Coastal waters of Vancouver Island north to Nootka Sound; occasional.

Canadian locality records: VANCOUVER ISLAND. Nootka Dist., near Nootka Sound (PC: G. C. Carl, PMBC).

Order SAURIA

Family IGUANIDAE

Phrynosoma douglassi douglassi Bell

PIGMY HORNED TOAD

Range in Canada: Extreme southern British Columbia, central part. Map 51.

Canadian locality records: BRITISH COLUMBIA. Similkameen Dist., Osoyoos (PC: G. C. Carl, PMBC).

Phrynosoma douglassi brevirostre Girard

EASTERN SHORT-HORNED TOAD

Range in Canada: Southwestern Alberta north to about 50° Latitude. Map 51.

Canadian locality records: ALBERTA. Manyberries, Medicine Hat, Onefour (ROMZP).

Family ANGUIDAE

Gerrhonotus coeruleus principis Baird and Girard

NORTHERN ALLIGATOR LIZARD

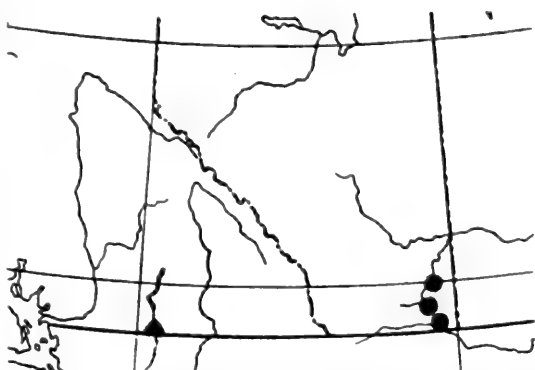
Range in Canada: Southern British Columbia including Vancouver Island. Map 52.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. Kamloops Dist., Sicamous (Cope 1900, p. 531). Kootenay Dist., Creston (Cowan 1937, p. K20, PMBC). Kaslo (VanDenburgh 1922, p. 438). Lillooet-New Westminster Dists. Lillooet River Valley (VanDenburgh 1922, p. 438). New Westminster Dist., Cultus Lake (ROMZP). North Vancouver (Cowan 1937, p. K20). Passage Island in Howe Sound (PC: G. C. Carl, PMBC). Yale Dist., Granite Creek (ROMZP). VANCOUVER ISLAND. Cowichan Lake Dist., Cowichan Lake (PC: G. C. Carl, PMBC). Esquimalt Dist., Langford Station (ROMZP). Nanaimo Dist., Nanaimo (ROMZP).

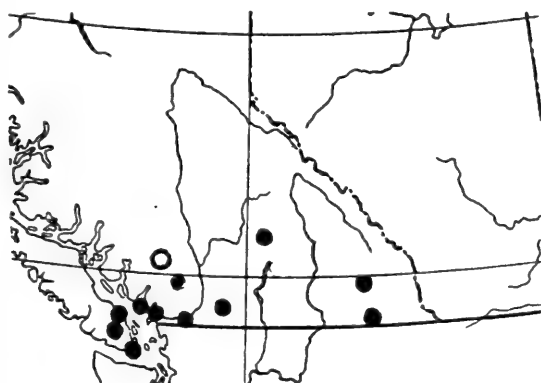
Family SCINCIDAE

Eumeces fasciatus Linnaeus

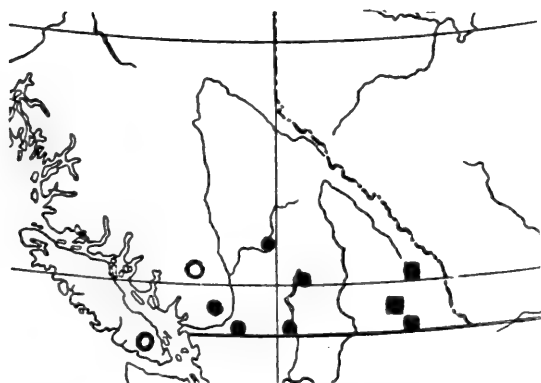
BLUE-TAILED SKINK, FIVE-LINED SKINK



Map 51. Phrynosoma douglassi douglassi ▲
Phrynosoma douglassi brevirostre ●



Map 52. Gerrhonotus coeruleus principis



Map 54. Charina bottae bottae ●
Charina bottae utahensis ■



Map 53. Eumeces fasciatus ●
Eumeces septentrionalis septentrionalis ■
Eumeces skiltonianus ▲

Range in Canada: Southern Ontario from Lake Erie northward into Parry Sound District, from Essex County eastward to Frontenac County. Apparently missing the north shore of Lake Ontario by about twenty to forty miles. Map 53.

Canadian locality records: ONTARIO. Essex Co., Arner (Patch 1934b, p. 50, NMC). Point Pelee (ROMZP). Frontenac Co., Arden (ROMZP). Mountain Grove (Patch 1934b, p. 50, NMC). Haliburton Co., Kinmount (ROMZP). Huron Co., Grand Bend (ROMZP). Kent Co., Rondeau Park (ROMZP). Lambton Co., Sarnia (Patch 1934b, p. 50, NMC). Lermon and Addington Co., Skootamatta Lake (PC: S. Bleakney). Lincoln Co., St. Catharines (ROMZP). Muskoka Dist., Go Home Bay, Gravenhurst (ROMZP). Parry Sound Dist., Gordon Bay (ROMZP). Parry Sound (SS). Peterborough Co., Peterborough (Patch 1934b, p. 50, NMC). Simcoe Co., Tossorontio Twp. (ROMZP).

Eumeces septentrionalis septentrionalis Baird

PRAIRIE SKINK

Range in Canada: Southern Manitoba. Map 53.

Canadian locality records: MANITOBA. Brandon (Mills 1949, p. 9). Onah (Patch 1934b, p. 51, NMC).

Eumeces skiltonianus Baird and Girard

WESTERN SKINK

Range in Canada: Southern British Columbia east of the Cascade Mountains. Map 53.

Canadian locality records: BRITISH COLUMBIA. Kootenay Dist., Edgewood (Kermode 1922, p. M12). Kootenay River, west branch (Taylor 1935, p. 415). Nelson (Cowan 1937, p. K21, PMBC). Sirdar (Cowan 1937, p. K21). Similkameen Dist., Vasseaux Lake (Patch 1934b, pp. 50-51).

Order SERPENTES

Family BOIDAE

Charina bottae bottae Blainville

PACIFIC RUBBER BOA

Range in Canada: Southwestern British Columbia, west of the Cascade Mountains, north to Rayleigh, Kamloops District; perhaps including Vancouver Island. Map 54.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. Kamloops Dist., Rayleigh (Carl 1951, p. 27). Lillooet-New Westminster Dists., Lillooet River Valley (VanDenburgh 1922, p. 462). New Westminster Dist., Chilliwack (Lord 1866, p. 305). Harrison Lake (Cowan 1937, p. K21, PMBC). Osoyoos Dist., Okanagan Landing, Vernon (Logier 1932, p. 325). Winfield (ROMZP). Similkameen Dist., Keremeos (ROMZP). *VANCOUVER ISLAND. No precise locality (VanDenburgh 1922, p. 642).

* This report is apparently in need of substantiation (Carl 1951, p. 27).

Charina bottae utahensis VanDenburgh
ROCKY MOUNTAIN RUBBER BOA

Range in Canada: Southeastern British Columbia. Map 54.

Canadian locality records: BRITISH COLUMBIA. Kootenay Dist., Canal Flats (Carl 1951, p. 27). Creston, Nelson (Cowan 1937, p. K21, PMBC).

Family COLUBRIDAE

Natrix septemvittata Say
QUEEN SNAKE

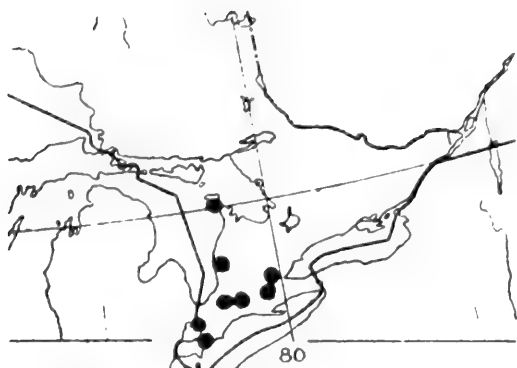
Range in Canada: Southwestern Ontario. Map 55.

Canadian locality records: ONTARIO. Brant Co., Paris (ROMZP). Bruce Co., Lake Scugog near Johnston's Harbour (Le Ray 1928, p. 42). Huron Co., Bayfield (PC: T. D. Patterson). Kent Co., Chatham, Mitchells Bay (LeRay 1928, p. 42). Middlesex Co., Kilworth Bridge (PC: W. E. Saunders). London (ROMZP). Waterloo Co., Galt (PC: W. J. LeRay).

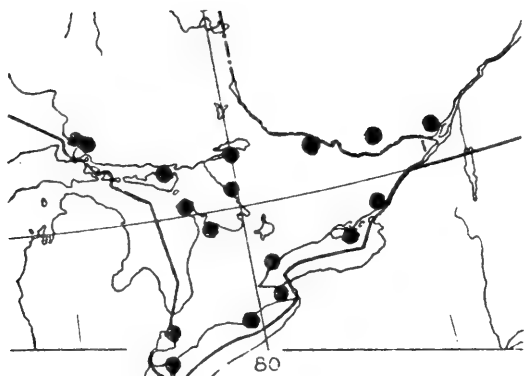
Natrix sipedon sipedon Linnaeus
NORTHERN WATER SNAKE

Range in Canada: All of southern Ontario from the Lower Lakes northward to Batchawana Bay and Lake Nipissing, eastward to Laval County, Quebec. Map 56.

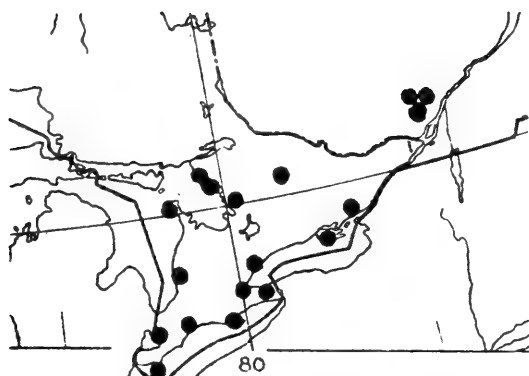
Canadian locality records: ONTARIO. Algoma Dist., Batchawana Bay to St. Marys River (Agassiz 1850, p. 382). Cedar Lake, north of Bruce Mines (ROMZP). Bruce Co., Tobermory (ROMZP). Essex Co., Point Pelee (ROMZP). Grey Co., Owen Sound (ROMZP). Kent Co., Mitchells Bay (SS). Leeds Co., Gananoque (ROMZP). Lincoln Co., St. Catharines (ROMZP). Manitoulin Dist., West Bay (ROMZP). Norfolk Co.,



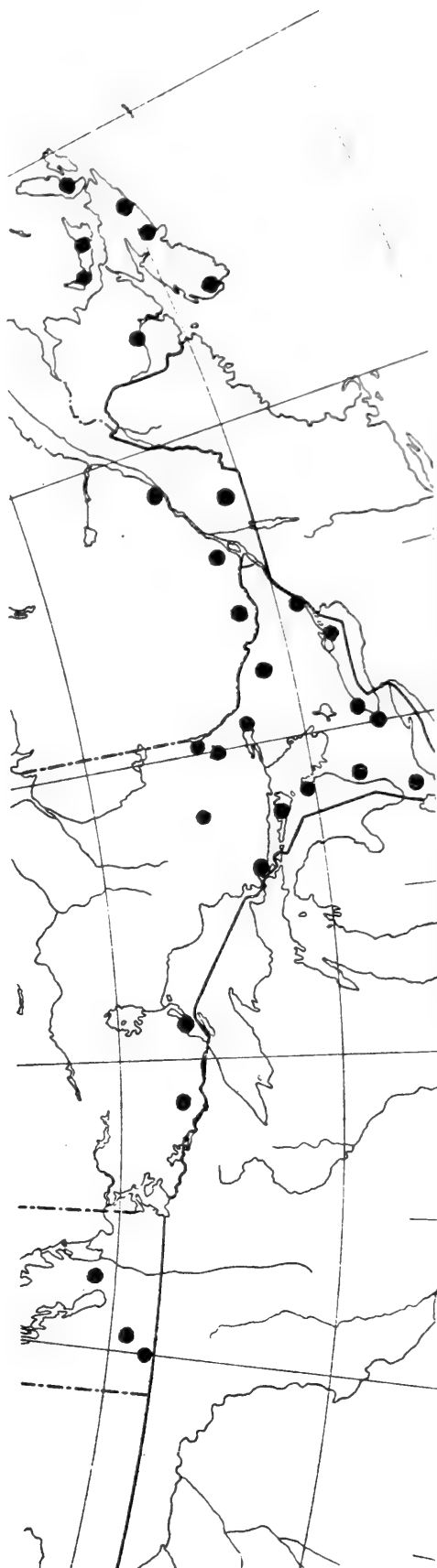
Map 55. Natrix septemvittata



Map 56. Natrix sipedon sipedon



Map 57. Storeria dekayi dekayi



Map 58. Storeria occipitomaculata occipitomaculata

Long Point (ROMZP). Parry Sound Dist., Franks Bay, Parry Sound (ROMZP). Prince Edward Co., Cressy (ROMZP). Renfrew Co., Petawawa (ROMZP). York Co., Toronto (ROMZP). QUEBEC. Gatineau Co., Masham Mills (ROMZP). Laval Co., Ste. Rose (PC: Frere Alexander). Terrebonne Co., St. Jerome (PC: Frere Alexander).

Natrix sipedon insularum Conant and Clay
ISLAND WATER SNAKE, LAKE ERIE WATER SNAKE

Range in Canada: Pelee Island, Essex County, Ontario.

Canadian locality records: ONTARIO. Essex Co., Pelee Island (ROMZP).

Storeria dekayi dekayi Holbrook
DEKAY'S SNAKE, BROWN SNAKE

Range in Canada: Southern Ontario from the Lower Lakes northward at least to Pointe au Baril, Parry Sound District, eastward to Joliette County, Quebec. Map 57.

Canadian locality records: ONTARIO. Bruce Co., Dorcas Bay, White Church (ROMZP). Elgin Co., Talbotville (ROMZP). Essex Co., Pelee Island, Point Pelee (ROMZP). Kent Co., Mitchells Bay (ROMZP). Leeds Co., Gananoque (ROMZP). Lincoln Co., St. Catharines (Cope 1900, p. 1002). Muskoka Dist., Lake Rosseau (ROMZP). Nipissing Dist., Costello Lake (ROMZP). Norfolk Co., Long Point (ROMZP). Parry Sound Dist., Franklin Island (ROMZP). Pointe au Baril (PC: A. Loveridge, MCZ). Prince Edward Co., Hallowell (ROMZP). York Co., Toronto (ROMZP). Wentworth Co., Hamilton (Brown 1928, p. 126). QUEBEC. Joliette Co., St. Alphonse, Laval Co., Ste. Rose, Terrebonne Co., Val Morin (PC: Frere Alexander).

Storeria occipitomaculata occipitomaculata Storer
RED-BELLIED SNAKE

Range in Canada: Southern Canada from western Manitoba to Cape Breton Island, Nova Scotia. Map 58.

Canadian locality records: MANITOBA. Boissevain, Shoal Lake (Seton 1918, p. 81). Treesbank (ROMZP). NEW BRUNSWICK. York Co., Fredericton (ROMZP). NOVA SCOTIA. Halifax Co., Fairy Lake (Gilpin 1878, p. 86). Moser River (ROMZP). Inverness Co., Orangedale (ROMZP). Yarmouth Co. (PC: A. Loveridge, MCZ). ONTARIO. Algoma Dist., Maclellan (ROMZP). Bruce Co., Dorcas Bay, Kinloss (ROMZP). Leeds Co., Black Rapids (Toner 1935, p. 42). Manitoulin Dist., Manitoulin

Island (ROMZP). Middlesex Co., Newbury (ROMZP). Nipissing Dist., Costello Creek in Algonquin Park (ROMZP). North Bay, Lake Timagami (ROMZP). Prince Edward Co., Cressy (Logier 1941, p. 102). Rainy River Dist., Quetico Park (ROMZP). Sudbury Dist., Gogama (ROMZP). Timiskaming Dist., New Liskeard (ROMZP). Thunder Bay Dist., Silver Islet (PC: D. A. MacLulich). York Co., Toronto (ROMZP). PRINCE EDWARD ISLAND. Prince Co., Enmore (ROMZP). Queens Co., Charlottetown (Mellish 1878, p. 164). QUEBEC. Argenteuil Co., St. Adolphe (PC: Frere Alexander). Gatineau Co., Gracefield (ROMZP). Joliette Co., St. Alphonse (PC: Frere Alexander). Quebec Co., Quebec (ROMZP). Sherbrook Co., Sherbrook (Trapido and Clausen 1938, p. 124).

Thamnophis ordinoides Baird and Girard

RED-STRIPED GARTER SNAKE, PUGET GARTER SNAKE

Range in Canada: Southern British Columbia including Vancouver Island, east to Pinewoods, Yale District, and north on the coast to Atmarko and Bella Coola, Coast District, Range 3. Map 59.

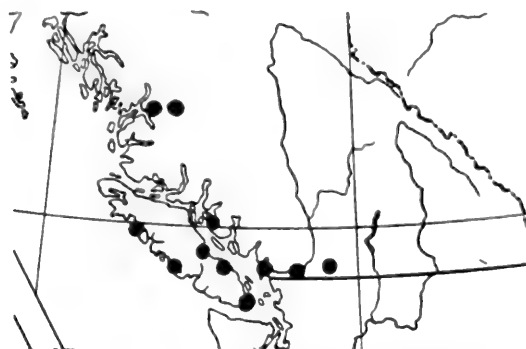
Canadian locality records: BRITISH COLUMBIA. MAINLAND. Coast Dist., Range 3, Atmarko (Patch 1922, p. 78). Bella Coola (Carl 1951, p. 35). New Westminster Dist., Cultus Lake (ROMZP). Lund (VanDenburgh 1922, p. 815). New Westminster (Cowan 1937, p. K22). Pitt Meadows (ROMZP). Sumas Prairie (Boulenger 1896, p. 201). Vancouver (ROMZP). Vedder Crossing (Kermode 1932a, p. B13). Yale Dist., below Pinewoods (Carl, Guiguet, and Hardy 1952, p. 108). VANCOUVER ISLAND. Clayoquot Dist., Tofino (ROMZP). Nanaimo Dist., Nanaimo (ROMZP). Nootka Dist., Tahsis Canal (VanDenburgh 1922, p. 815). Victoria Dist., Victoria (ROMZP).

Thamnophis elegans vagrans Baird and Girard

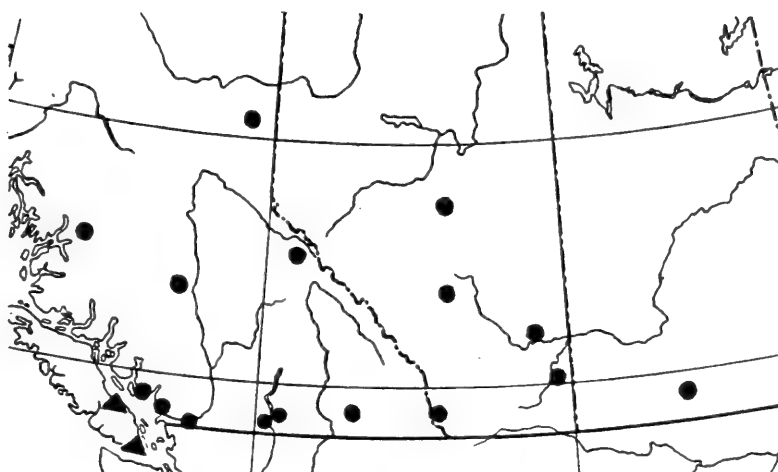
WANDERING GARTER SNAKE

Range in Canada: From the Pacific coast eastward to central Saskatchewan, northward in British Columbia into southern Peace River District. Map 60.

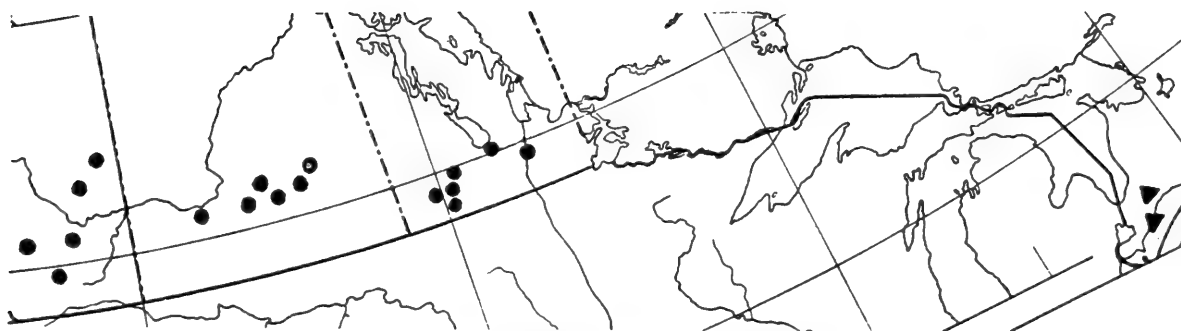
Canadian locality records: ALBERTA. Cabin Lake (SS). Carbondale (ROMZP). Jasper National Park (SS). Medicine Hat (PC: A. Loveridge, MCZ). Red Deer (ROMZP). Red Horse Creek near Lundbreck (ROMZP). BRITISH COLUMBIA. Cariboo Dist., Farwell Canyon (ROMZP). Coast Dist., Range 3, Stuie (Fitch 1940, p. 24). Kootenay Dist., Nelson (Ruthven 1908, p. 140). New Westminster Dist., Bowen Island (Cowan 1937, p. K22). Cultus Lake (PC: G. C. Carl, PMBC). Gambier Island (Cowan 1937, p. K22). Vancouver (ROMZP). Peace River Dist., Hudson Hope (ROMZP). Similkameen Dist., Marron Lake (ROMZP). Penticton (Cowan 1937, p. K22). SASKATCHEWAN. Twelve Mile Lake (Sternberg 1930, p. 149).



Map 59. Thamnophis ordinoides



Map 60. Thamnophis elegans vagrans ●
Thamnophis elegans nigrescens ▲



Map 61. Thamnophis radix haydeni ●
Thamnophis butleri ▲

Thamnophis elegans nigrescens Johnson
PUGET SOUND GARTER SNAKE

Range in Canada: Vancouver Island. If present on mainland,* its distribution there uncertain, Map 60.

Canadian locality records: VANCOUVER ISLAND. Nanaimo Dist., Departure Bay, Nanaimo (ROMZP). Victoria Dist., Glen Lake, Lake Hill, Victoria (PC: G. C. Carl, PMBC).

* With regard to the range of T. e. nigrescens, Johnson (1947, p. 160) states, "T. e. nigrescens overlaps without intergradation about two thirds of the Washington state range [of ordinoides] and much of the British Columbia area" (italics ours). Mainland specimens of T. elegans in the ROMZP collection, even those from the coast at Vancouver, all appear to be of the form vagrans. Those from Vancouver Island (4 specimens) agree closely enough with Johnson's description of nigrescens.

Thamnophis radix haydeni Kennicott
WESTERN PLAINS GARTER SNAKE

Range in Canada: Southern parts of the Prairie Provinces. Map 61.

Canadian locality records: ALBERTA. High River (Fowler 1934, p. 140). Lethbridge, Louisiana Lakes, Richdale, Rose Lynn, Veteran (ROMZP). MANITOBA. Carberry (Seton 1918, p. 81). High Bluff (ROMZP). Pembina River (Seton 1918, p. 81). Souris (ROMZP). Treesbank (Criddle 1937, p. 142). Turtle Mountain (Seton 1918, p. 81). Winnipeg (ROMZP). SASKATCHEWAN. Indian Head, Lumsden Beach, Melville (ROMZP). Moose Jaw (Boulenger 1896, p. 211). Regina, Rush Lake (Ruthven 1908, p. 77).

Thamnophis butleri Cope
BUTLER'S GARTER SNAKE

Range in Canada: Southwestern Ontario.² Map 61.

Canadian locality records: ONTARIO. Essex Co., Newbury (ROMZP). Kent Co., Rondeau Park (PC: F. C. Blanchard).

Thamnophis sauritus sauritus Linnaeus

EASTERN RIBBON SNAKE

Range in Canada: Southern Ontario northward into Muskoka District. Southern Nova Scotia. Map 62.

Canadian locality records: NOVA SCOTIA. Annapolis and Queens Cos., Lake Kejimikujik area (Bleakney 1951, pp. 118-9). ONTARIO. Frontenac Co., Oconto (ROMZP). Grey Co., Meaford (ROMZP). Huron Co., Goderich (ROMZP). Kent Co., Rondeau Park (ROMZP). Lennox and Addington Co., Skootamatta Lake (PC: S. Bleakney). Lincoln Co., Warner (PC: S. Troyer). Muskoka Dist., Torrence (PC: R. V. Lindsay). Norfolk Co., St. Williams (SC). Peterborough Co., Oak Lake (ROMZP). York Co., Toronto (ROMZP).

Thamnophis sirtalis sirtalis Linnaeus

EASTERN GARTER SNAKE

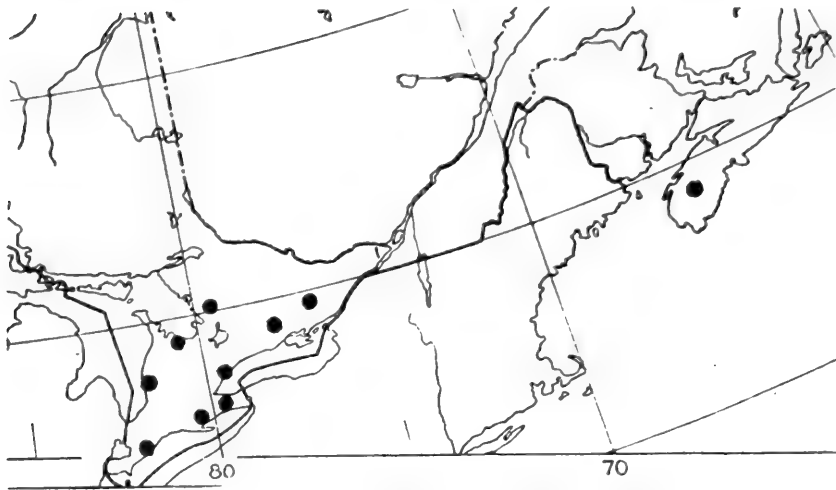
Range in Canada: From the Manitoba-Ontario border to Cape Breton, Nova Scotia, northward in Ontario and western Quebec to about 52° Latitude. Map 63.

Canadian locality records: NEW BRUNSWICK. Charlotte Co., Chamcook Lake (ROMZP). NOVA SCOTIA. Annapolis Co., Wilmot (Gilpin 1878, p. 81). Cape Breton Co., Sydney (ROMZP). Halifax Co., Grand Lake (ROMZP). Inverness Co., Upper Margaree River (ROMZP). ONTARIO. Algoma Dist., Gros Cap (ROMZP). Bruce Co., Dorcas Bay, Lucknow (ROMZP). Cochrane Dist., Smoky Falls (ROMZP). Essex Co., Pelee Island, Point Pelee (ROMZP). Glengarry Co., Alexandria (ROMZP). Kent Co., Mitchells Bay, Rondeau Park (ROMZP). Kenora Dist., Malachi, Sioux Lookout (ROMZP). Manitoulin Dist., Mindemoya (ROMZP). Norfolk Co., Long Point (ROMZP). Patricia Dist., Lake Attawapiskat (ROMZP). Rainy River Dist., Rainy River (ROMZP). Thunder Bay Dist., Michipicoten Island, Port Arthur, St. Ignace Island (ROMZP). York Co., Toronto (ROMZP). Welland Co., Wainfleet (ROMZP). PRINCE EDWARD ISLAND. Queens Co., Charlottetown (Mellish 1878, p. 165). Prince Co., Conway (ROMZP). QUEBEC. Abitibi Dist., Point Comfort at James Bay (ROMZP). Gaspe Co., Gaspe (NMC). Ste. Anne des Monts River (Trapido and Clausen 1938, p. 124). Quebec Co., Quebec (ROMZP). Saguenay Co., Godbout (ROMZP).

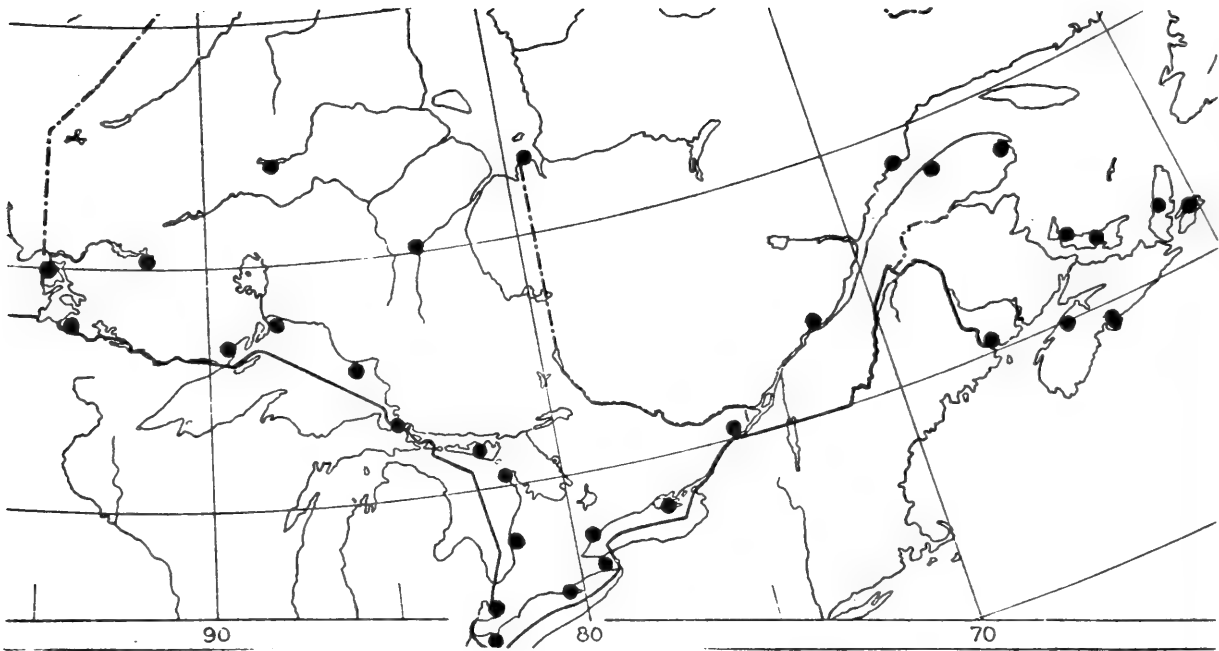
Thamnophis sirtalis parietalis Say

RED-BARRED GARTER SNAKE, RED-SIDED GARTER SNAKE

Range in Canada: From Alberta eastward across the prairies into extreme western Ontario, northward in the west at least to Fort Smith, Northwest Territories. Map 64.



Map 62. Thamnophis sauritus sauritus



Map 63. Thamnophis sirtalis sirtalis

Canadian locality records: ALBERTA. Birch River, Edmonton (Harper 1931a, p. 69). MANITOBA. Berens Island in Lake Winnipeg (O'Donoghue 1921, p. 128). Gypsumville, High Bluff, Jackhead Reserve, Lake St. Martin, Teulon (ROMZP). NORTHWEST TERRITORIES. Fort Smith (Harper 1931a, p. 69). ONTARIO. Patricia Dist., Favourable Lake (ROMZP). SASKATCHEWAN. Herbert (ROMZP).

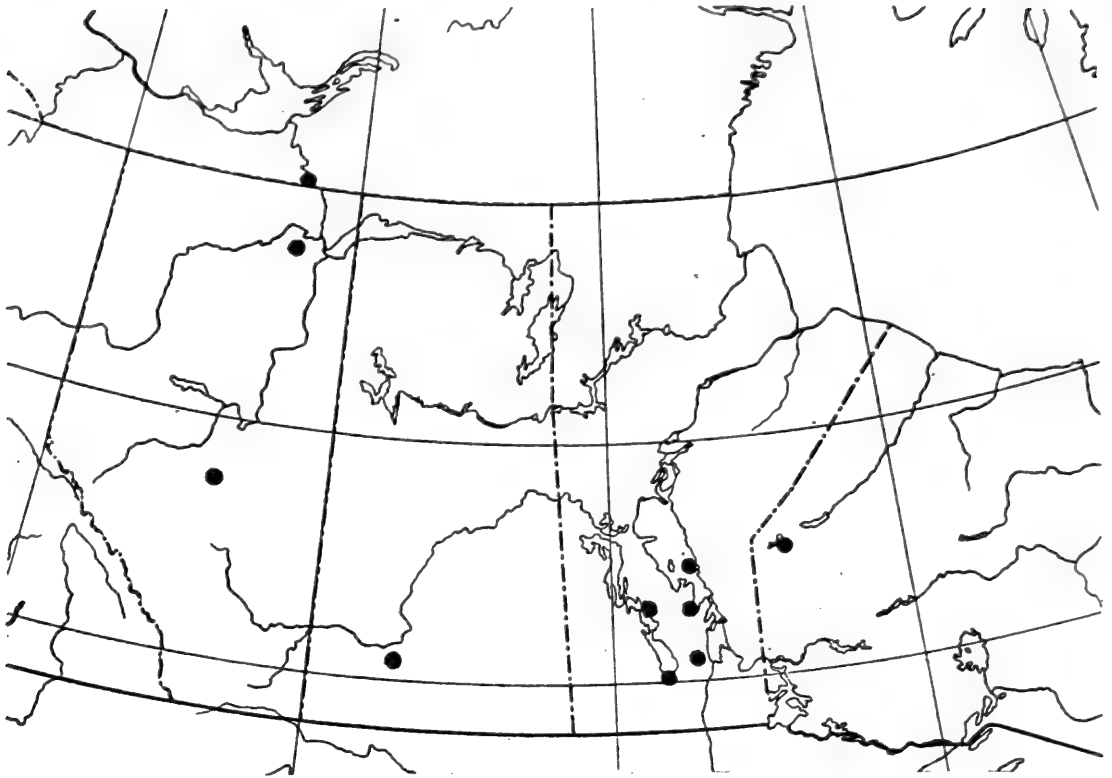
Thamnophis sirtalis ssp. (In British Columbia) Map 65.
COMMON GARTER SNAKE

This complex includes within the borders of British Columbia forms that have been assigned by various authors, at various times, to one or more of the following races of Thamnophis sirtalis: concinus, fitchi, infernalis, parietalis, pickeringi, tetrataenia and trilineata. In the sixth edition of the check list (Schmidt 1953, pp. 175-6) three races, concinus, trilineata, and fitchi, are reported as occurring in British Columbia, the two former as reaching Vancouver Island. Boulenger's records of infernalis were certainly in error, but with regard to the others, the application of race names can mean nothing, until geographic ranges can be defined with some degree of consistency for some or all of them (in British Columbia), and it can be shown that any two or more alleged races do not intergrade throughout their ranges within that province.

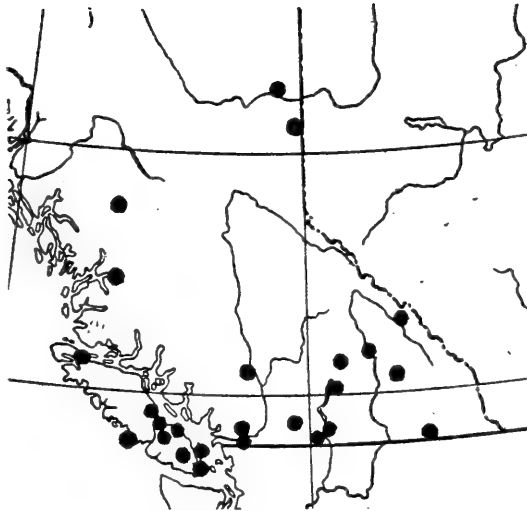
In the past history of this group a number of race names have been erected upon individual variations and later discarded. We should learn from experience in dealing with such a highly variable species as sirtalis, that the naming of supposed races should not be lightly undertaken. The writers are not prepared to discuss the validity of any particular named race, nor is this the place to do so, but until zoologists who are studying (and naming) the races can find less fluid ground of common agreement, the writers prefer not to commit themselves to race names for any of this variable species within British Columbia.

In citing the literature references for the localities named below, the race names applied by the various authors are cited in parentheses with them.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. Cariboo Dist., vicinity of Mt. Robson (T. s. concinns) (Cowan 1937, p. K23). Coast Dist., Range 3, Bella Coola (T. s. concinns) (Patch 1922, p. 78, VanDenburgh 1922, p. 798). Coast Dist., Range 4, Ootsa Lake (T. s. concinns) (Cowan 1937, p. K23). Kamloops Dist., Sicamous (Eutania s. trilineata) (Cope 1894, p. 181); (E. s. parietalis) (Cope 1894, p. 181); (T. s. parietalis) (Ruthven 1908, p. 167). Kootenay Dist., Creston (T. s. concinns) (Cowan 1937, p. K23). Donald (T. s. parietalis) (Ruthven 1908, p. 167); (T. s. concinns) (VanDenburgh 1922, p. 798). Golden (Tropidonotus ordinatus infernalis) (Boulenger 1896, p. 208). Kaslo (T. s. parietalis) (Ruthven 1908, p. 167); (T. s. concinns) (VanDenburgh 1922, p. 798). Nelson (T. s. parietalis) (Ruthven 1908, p. 167). Revelstoke (T. o. infernalis) (Boulenger 1896, p. 208). Lillooet Dist., Seton Lake (T. s. concinns) (Cowan 1937, p. K23). Lillooet-New Westminster Dists., Lillooet River Valley (T. s. concinns) (VanDenburgh and Slevin 1918, p. 192, Van



Map 64. Thamnophis sirtalis parietalis



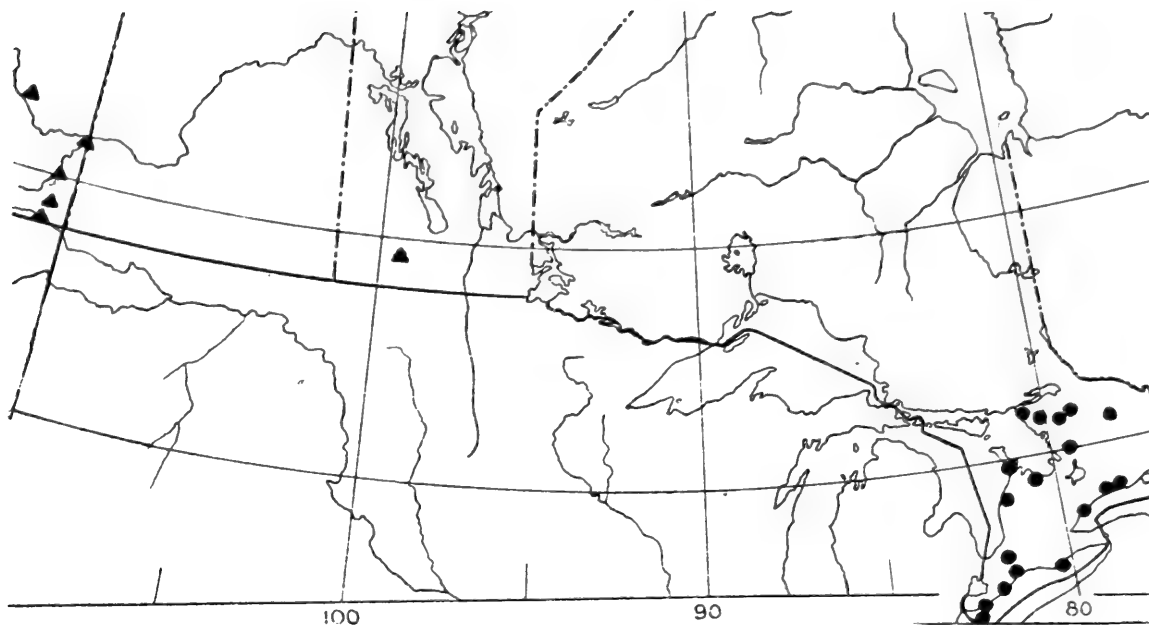
Map 65. Thamnophis sirtalis ssp.
(in British Columbia)

Denburgh 1922, p. 798). New Westminster Dist., Chilliwack (T. s. concinnus) (Van Denburgh 1922, p. 798). Hatzic (E. s. trilineata, E. s. concinnus) (Cope 1894, p. 181); (T. parietalis) (Fannin 1898, p. 58). Lund (T. s. concinnus) (VanDenburgh 1922, p. 798). Sumas Prairie (T. o. infernalis) (Boulenger 1896, p. 208). Vancouver (T. s. concinnus) (Cowan 1937, p. K23). Osoyoos Dist., Nahun (T. s. concinnus) (Cowan 1937, p. K23). Okanagan Landing (T. s. concinnus) (Cowan 1937, p. K23). Vernon (T. parietalis) (Fannin 1898, p. 58); (T. s. concinnus) (Cowan 1937, p. K23). Peace River Dist., Charlie Lake, Tupper Creek (T. s. parietalis) (Cowan 1939, p. 93). Similkameen Dist., Marron Lake (T. s. concinnus) (Logier 1932, p. 327, ROMZP). Okanagan Falls (T. s. concinnus) (Cowan 1937, p. K23). Ricter Pass (T. s. concinnus) (Logier 1932, p. 327, ROMZP). Yale Dist., Princeton (T. s. parietalis) (Logier 1932, p. 327, ROMZP). Mainland, no precise locality, Coast region of British Columbia (T. s. concinnus) (Van Denburgh and Slevin 1918, p. 192, VanDenburgh 1922, p. 798). Southern British Columbia (T. s. concinnus) (Stejneger and Barbour 1943, p. 172, Schmidt 1953, p. 176). Lower mainland (T. s. pickeringi) (Carl 1944, p. 33). Peace River District (T. s. parietalis) (Carl 1944, p. 33, 1951, p. 33). Greater part of Province (T. s. tetrataenia) (Carl 1944, p. 33, 1951, p. 33). Mainland coast adjacent to Vancouver Island (T. s. trilineata) (Carl 1951, p. 33). Peace River District east of the Rocky Mountains (T. s. parietalis) (Carl 1951, p. 33). VANCOUVER ISLAND. Alberni Dist., Alberni valley (T. s. concinnus) (VanDenburgh and Slevin 1918, p. 192, VanDenburgh 1922, p. 798). Stamp River (undetermined) (ROMZP). Clayoquot Dist., Tofino (undetermined) (ROMZP). Comox Dist., Comox Lake (T. s. concinnus) (Ruthven 1908, p. 174, VanDenburgh 1922, p. 798). Cowichan Lake Dist., Mayne Island (T. s. concinnus) (VanDenburgh and Slevin 1913, p. 192, VanDenburgh 1922, p. 798). Esquimalt Dist., Langford Lake (T. s. concinnus) (Cowan 1937, p. K23). Goldstream Dist., Goldstream (T. s. concinnus) (Cowan 1937, p. K23). Nanaimo Dist., Gabriola Island (T. s. concinnus) (VanDenburgh 1922, p. 798, Cowan 1937, p. K23). Nanaimo (T. s. concinnus) (Cowan 1937, p. K23). Nelson Dist., Union Bay (T. s. concinnus) (VanDenburgh and Slevin 1918, p. 192, Van Denburgh 1922, p. 798). North Saanich Dist., Sidney (T. s. concinnus) (Cowan 1937, p. K23). Rupert Dist., Hardy Bay (T. s. concinnus) (Cowan 1937, p. K23). Sahtlam Dist., Sahtlam (T. s. concinnus) (Cowan 1937, p. K23). Sooke Dist., Sooke Lake (T. s. concinnus) (Cowan 1937, p. K23). Victoria Dist., Victoria (T. s. concinnus) (Cowan 1937, p. K23). Vancouver Island, no precise locality, (T. s. concinnus) (Van Denburgh and Slevin 1918, p. 192, VanDenburgh 1922, p. 798, Stejneger and Barbour 1943, p. 172, Schmidt 1953, p. 175); (T. s. pickeringi) (Carl 1944, p. 33); (T. s. trilineata) (Carl 1951, p. 33, Schmidt 1953, p. 176).

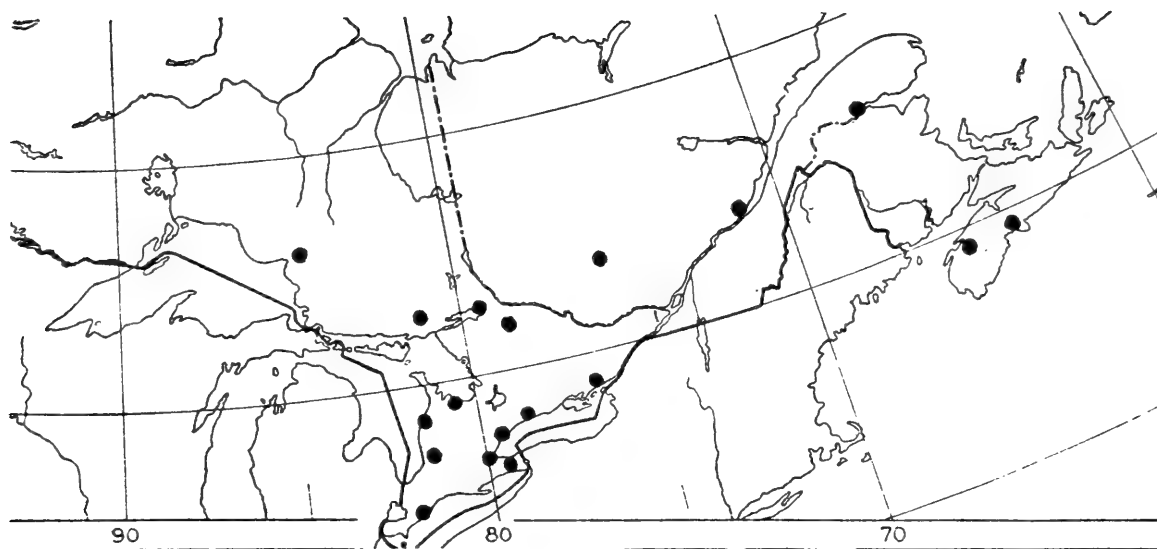
Heterodon platyrhinos platyrhinos Latreille

EASTERN HOG-NOSED SNAKE, BLOWING ADDER

Range in Canada: Southern Ontario northward to northern Parry Sound District and eastward to Durham, or possibly to Hastings, county. Map 66.



Map 66. *Heterodon nasicus nasicus* ▲
Heterodon platyrhinos platyrhinos ●



Map 67. *Diadophis punctatus edwardsi*

Canadian locality records: ONTARIO. Bruce Co., Bruce Peninsula, Lucknow (ROMZP). Durham Co., Darlington Twp. (Allin 1940, p. 112). Port Hope (Garnier 1881, p. 37). Elgin Co., Dutton (ROMZP). Essex Co., Pelee Island (Jones 1912, p. 103). Point Pelee (ROMZP). Grey Co., Thornbury (PC: L. H. Beamer). Kent Co., Rondeau Park (ROMZP). Middlesex Co., Strathroy (ROMZP). Muskoka Dist., Torrence (ROMZP). Nipissing Dist., Madawaska (PC: C. L. Patch, NMC). Norfolk Co., Long Point (ROMZP). Parry Sound Dist., Magnetawan (Kelly 1934, p. 39). Rye (ROMZP). Still River (Saunders 1929, p. 208). York Co., Toronto (ROMZP).

Heterodon nasicus nasicus Baird and Girard

WESTERN HOG -NOSED SNAKE

Range in Canada: Southern Alberta to southern Manitoba. Map 66.

Canadian locality records: ALBERTA. Comroy, Craigmyle, Empress, Manyberries, Medicine Hat (Moore 1953b, p. 173, UA). MANITOBA. Aweme, Onah (Criddle 1919, p. 135).

Diadophis punctatus edwardsi Merrem

EASTERN RING -NECKED SNAKE

Range in Canada: Southern Ontario and Quebec to Nova Scotia, northward to about 48° Latitude. Map 67.

Canadian locality records: NOVA SCOTIA. Annapolis Co., Annapolis (Jones 1865, p. 115). Halifax Co., Bedford Basin (Piers 1895, p. 181). ONTARIO. Algoma Dist., Hawk Junction (ROMZP). Bruce Co., Southampton (ROMZP). Durham Co., Darlington Twp. (Allin 1940, p. 112). Grey Co., Meaford (ROMZP). Huron Co., Londesborough (ROMZP). Kent Co., Rondeau Park (ROMZP). Leeds Co., Pitts Ferry (Toner 1935, p. 42). Lincoln Co., St. Catharines (Yarrow 1882, p. 95). Nipissing Dist., Brent, North Bay (ROMZP). Wentworth Co., Hamilton (Brown 1928, p. 126). York Co., Toronto (ROMZP). QUEBEC. Bonaventure Co., Matapedia (PC: A. Loveridge, MCZ). Gatineau Co., Lake Basketong (ROMZP). Montmorency Co., St. Joachim (Provancher 1874, p. 353).

Coluber constrictor constrictor Linnaeus

BLACK RACER, BLACKSNAKE

Range in Canada: Nova Scotia, Prince Edward Island, and possibly New Brunswick. Map 68.

Canadian locality records: NOVA SCOTIA. Halifax Co., Halifax (Jones 1865, p. 118, Gilpin 1878, p. 84, Piers 1890, p. 471). PRINCE EDWARD ISLAND. Queens Co., Charlottetown (Mellish 1878, p. 165).

Coluber constrictor flaviventris Say
YELLOW-BELLIED RACER

Range in Canada: Extreme southwestern Ontario. Map 68.

Canadian locality records: Essex Co., Pelee Island (Jones 1912, p. 103). Point Pelee (Patch 1919, p. 60). Huron Co., Grand Bend (ROMZP).

Coluber constrictor mormon Baird and Girard
WESTERN RACER

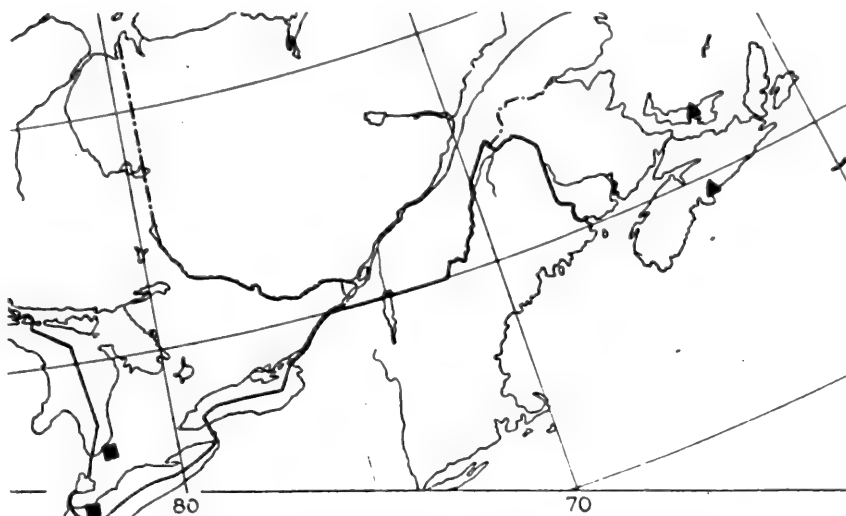
Range in Canada: Central part of southern British Columbia. Map 69.

Canadian locality records: Kamloops Dist., Kamloops (PC: G. C. Carl, PMBC). Lillooet Dist., Seton Lake (PC: G. C. Carl, PMBC). Osoyoos Dist., Summerland (ROMZP). Vernon (PC: G. C. Carl, PMBC). Similkameen Dist., Keremeos, Marron Lake, Vaseaux Lake (ROMZP).

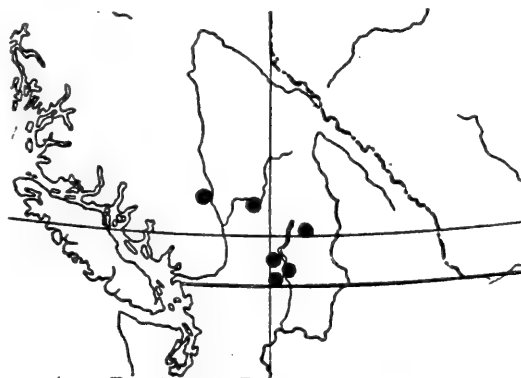
Opheodrys vernalis vernalis Harlan
EASTERN SMOOTH GREEN SNAKE

Range in Canada: Southern Canada from Nova Scotia to western Manitoba. Map 70.

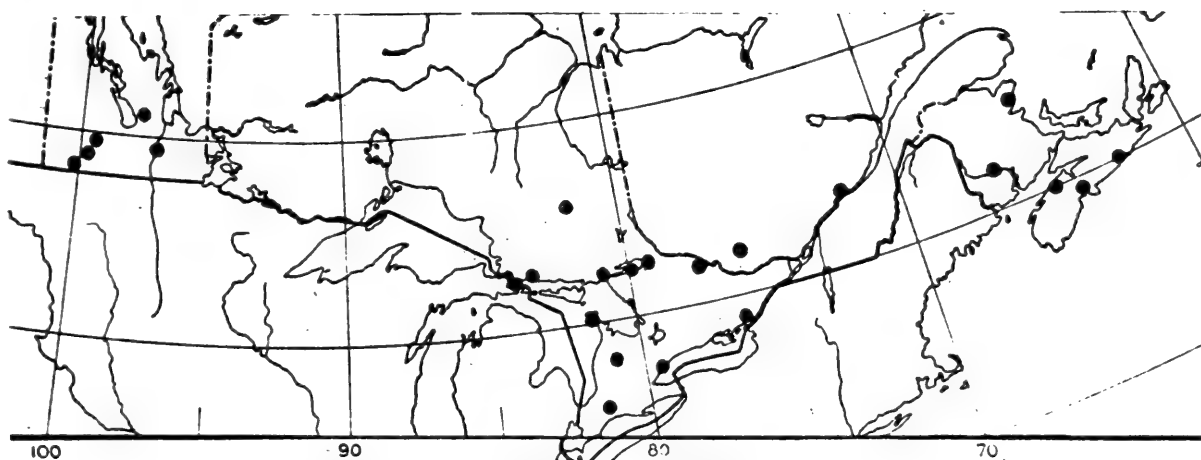
Canadian locality records: MANITOBA*. Boissevain, Carberry, Shoal Lake (Seton 1918, p. 81). Treesbank (Criddle 1937, p. 142, ROMZP). Winnipeg (Seton 1918, p. 81). NEW BRUNSWICK. Northumberland Co., Tabusintac (Grobman 1941, p. 12, CM). York Co., Fredericton (ROMZP). NOVA SCOTIA. Halifax Co., Moser River, Wellington (ROMZP). Kings Co., Berwick (ROMZP). ONTARIO. Algoma Dist., Iron Bridge (ROMZP). St. Joseph Island (Logier 1942, p. 155). Bruce Co., Dorcas Bay (ROMZP). Frontenac Co., Washburn (Toner 1935, p. 42). Grey Co., Flesherton (ROMZP). Middlesex Co., London (PC: T. D. Patterson). Nipissing Dist., North Bay (ROMZP). Parry Sound Dist., Franks Bay (ROMZP). Renfrew Co., Petawawa River (ROMZP). Sudbury Dist., Bigwood, Gogama (ROMZP). York Co., Toronto (ROMZP). QUEBEC. Gatineau Co., Gracefield (ROMZP). Quebec Co., Quebec (ROMZP).



Map 68. Coluber constrictor constrictor ▲
Coluber constrictor flaviventris ■



Map 69. Coluber constrictor mormon



Map 70. Opheodrys vernalis vernalis

* The Manitoba records should, according to Grobman (1941, p. 22), belong to an intergrading population between the races vernalis and blanchardi.

Elaphe vulpina gloydi Conant
EASTERN FOX SNAKE

Range in Canada: Southern Ontario in the counties or districts bordering lakes Erie, St. Clair, and Huron, and Georgian Bay, close to quiet water. Map 71.

Canadian locality records: Bruce Co., Lucknow (ROMZP). Essex Co., Auld, Kingsville, Pelee Island, Point Pelee (ROMZP). Kent Co., Mitchells Bay (ROMZP). Rondeau Park (PC: S. Troyer). Muskoka Dist., Go Home Bay (A. L. Tester, in MS). Norfolk Co., Long Point, Turkey Point, Port Rowan, St. Williams (ROMZP). Parry Sound Dist., Franklin Island, Pointe au Baril (ROMZP). Simcoe Co., Waubaushene (SS).

Elaphe obsoleta obsoleta Say
PILOT BLACK SNAKE

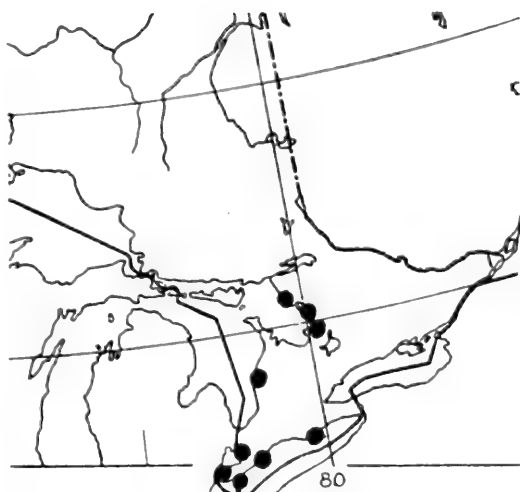
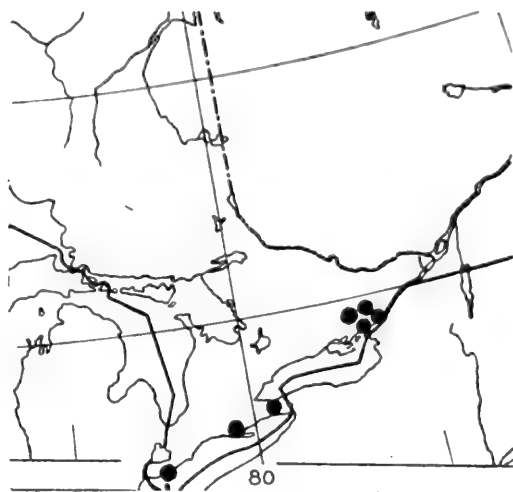
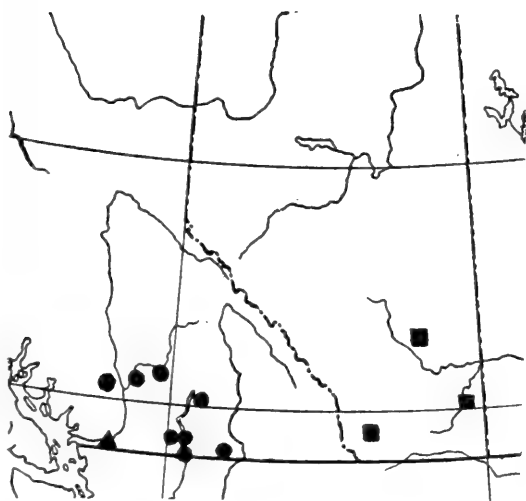
Range in Canada: Southern Ontario in the counties bordering Lake Erie, also Leeds and Frontenac counties. Map 72.

Canadian locality records: Essex Co., Point Pelee (Logier 1925, p. 93, Lindsay 1931, p. 84). Frontenac Co., Battersea, Godfrey (Lindsay 1931, p. 84). Leeds Co., Black Rapids (SS). Gananoque, Gananoque Lake, Glen Buell, Lansdowne, Marble Rock, Sand Bay (ROMZP). Seeleys Bay (Toner 1934, p. 47). Thousand Islands (Toner 1935, p. 42). Norfolk Co., Port Rowan, Walsingham Twp. (ROMZP). Welland Co., Fonthill (Lindsay 1931, p. 84).

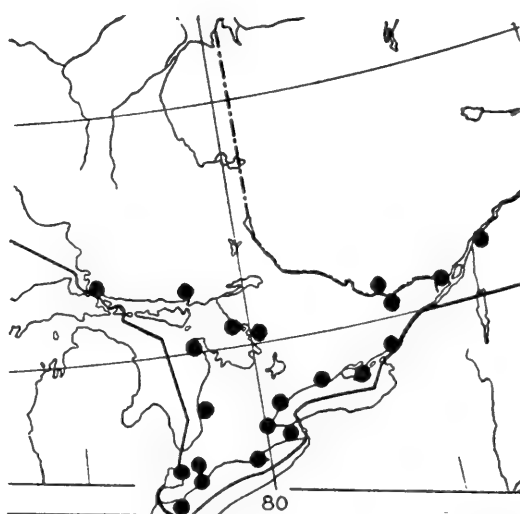
Pituophis catenifer catenifer Blainville
PACIFIC GOPHER SNAKE

Range in Canada: Southern British Columbia west of the Cascade Mountains. Map 73.

Canadian locality records: New Westminster Dist., Sumas (Lord 1866, p. 307).

Map 71. Elaphe vulpina gloydiMap 72. Elaphe obsoleta obsoleta

Map 73. Pituophis catenifer catenifer ▲
Pituophis catenifer deserticola ●
Pituophis catenifer sayi ■

Map 74. Lampropeltis doliata triangulum

Pituophis catenifer deserticola Stejneger
GREAT BASIN GOPHER SNAKE

Range in Canada: Dry belt of southern British Columbia north to Kamloops, west to Lillooet, and east to Cascade in eastern Similkameen District. Map 73.

Canadian locality records: Kamloops Dist., Kamloops, between Ashcroft and Spences Bridge (PC: G. C. Carl, PMBC). Lillooet Dist., Lillooet (Carl 1951, p. 31). Osoyoos Dist., Okanagan Landing, Vernon (ROMZP). Similkameen Dist., Cascade (Carl 1951, p. 31). Green Lake, Kaledon, Keremeos (ROMZP). Okanagan Falls, Osoyoos (PC: G. C. Carl, PMBC). Vaseaux Lake (Anderson 1914, p. G19).

Pituophis catenifer sayi Schlegel
BULL SNAKE

Range in Canada: Southern Alberta and probably southwestern Saskatchewan. Map 73.

Canadian locality records: ALBERTA. Hanna (SS, UA). Lethbridge (ROMZP). Medicine Hat (Boulenger 1894, p. 69).

Lampropeltis doliata triangulum Lacepede
EASTERN MILK SNAKE, MILK SNAKE

Range in Canada: Southern Ontario and western Quebec, northward into Algoma and Sudbury districts, and eastward to Yamaska. Map 74.

Canadian locality records: ONTARIO. Algoma Dist., Echo Lake and Sault Ste. Marie (ROMZP). Bruce Co., Lucknow, Tobermory (ROMZP). Carleton Co., Ottawa (Patch 1937, p. 4). Essex Co., Pelee Island (Jones 1912, p. 103). Point Pelee (Logier 1925, p. 93, SC). Kent Co., Rondeau Park (ROMZP). Leeds Co., Black Rapids (ROMZP). Middlesex Co., Newbury (ROMZP). Norfolk Co., Long Point (ROMZP). Northumberland Co., Brighton (ROMZP). Parry Sound Dist., Franklin Island, Gordon Bay (ROMZP). Prince Edward Co., Picton (ROMZP). Sudbury Dist., Spanish River (ROMZP). Welland Co., Wainfleet (ROMZP). Wentworth Co., Hamilton (Brown 1928, p. 126). York Co., Toronto (ROMZP). QUEBEC. Gatineau Co., Alcove (ROMZP). Hochelago Co., Montreal (Provancher 1874, p. 330). Yamaska Co., Yamaska (Provancher 1874, p. 330).

Family CROTALIDAE

Sistrurus catenatus catenatus Rafinesque

EASTERN MASSASAUGA

Range in Canada: Southern Ontario from Lake Erie northward to French River and Manitoulin District, eastward at least to the Muskoka Lakes. Reported as formerly inhabiting Prince Edward County. Map 75.

Canadian locality records: Bruce Co., Dorcas Bay, Red Bay (ROMZP). Lucknow (Gloyd 1940, p. 52, USNM). Essex Co., Kingsville (Miner 1930, p. 50). Point Pelee (Stejneger 1895, p. 414). Haldimand Co., Lowbanks (SS). Kent Co., Tillbury (Garnier 1881, p. 38). Manitoulin Dist., Killarney (Gloyd 1940, p. 52). Middlesex Co., Newbury (Fox 1948, p. 160). Muskoka Dist., Arthur's Island (Georgian Bay), Port Severn, Sparrow Lake (ROMZP). Bala (Toronto Daily Star, Sept. 13, 1938, PC: Dr. J. F. McCreary). Gravenhurst (NMC). Norfolk Co., Simcoe, 3 miles west of (PC: M. Landon). Parry Sound Dist., French River (ROMZP). Nobel (Nobel News, Aug. 21, 1943 (photograph)). Pointe au Baril, about 5 miles south of (ROMZP). Snug Harbour (journal note: E. Beaupres). Welland Co., Port Colborne, Wainfleet (ROMZP). Wentworth Co., Hamilton (Hamilton Spectator, Aug. 16, 1949 (photograph)).

Crotalus horridus horridus Linnaeus

TIMBER RATTLESNAKE

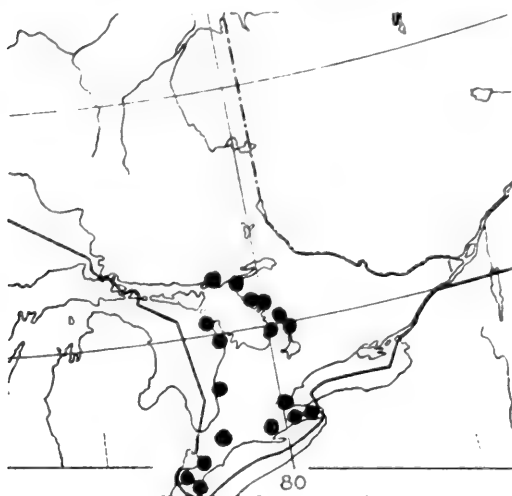
Range in Canada: Apparently now restricted to the Niagara Gorge region of Welland County, Ontario. Formerly of more extended range, probably following the limestone outcropping northward to Manitoulin District. Map 76.

Canadian locality records: Essex Co., Point Pelee (Patch 1919, p. 61, NMC). Halton Co., Lake Medad (Galinee 1669, Charlton 1884, pp. 51-52). Manitoulin Dist., Fitzwilliam Island (ROMZP). Welland Co., Niagara Falls, Niagara Glen (ROMZP). Wentworth Co., Hamilton (Garnier 1881, p. 38).

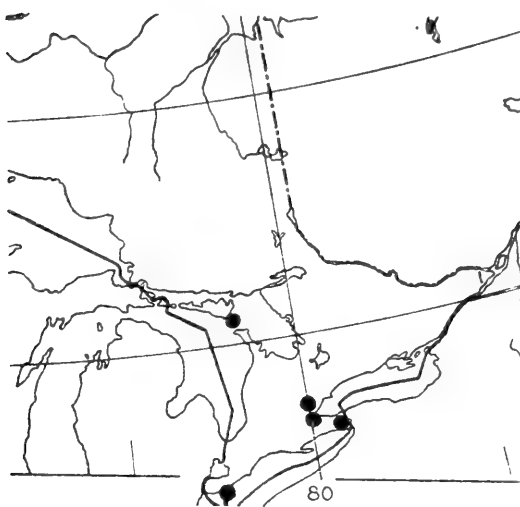
Crotalus viridis viridis Rafinesque

PRAIRIE RATTLESNAKE

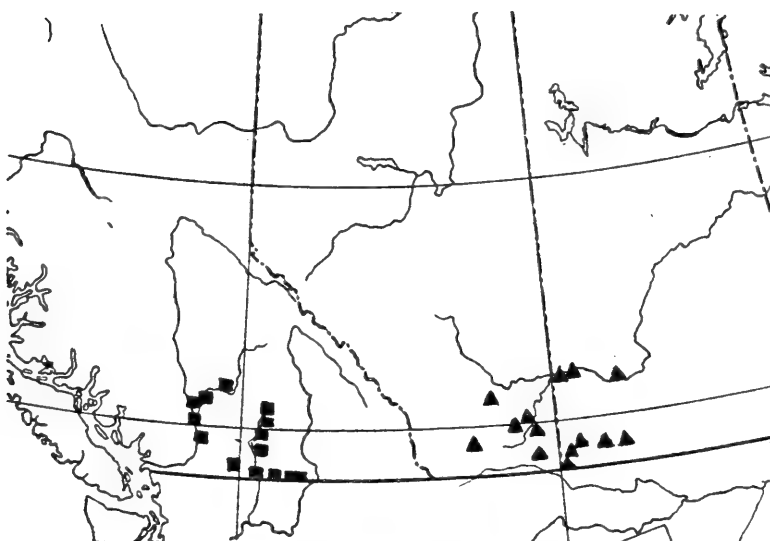
Range in Canada: Southern Alberta and Saskatchewan south of Latitude 52°, east to Longitude 108°, and west to 113°. Map 77.



Map 75. Sistrurus catenatus catenatus



Map 76. Crotalus horridus horridus



Map 77. Crotalus viridis viridis ▲
Crotalus viridis oregonus ■

Canadian locality records: ALBERTA. Alderson, Diamond City (PC: L. M. Klauber). High River, 50 miles east of (Fowler 1934, p. 140). Iron Springs (PC: A. Loveridge, MCZ). Lethbridge, Manyberries, Medicine Hat (ROMZP). Forty miles west of Medicine Hat, Redcliff, Suffield (PC: L. M. Klauber). SASKATCHEWAN. Bellanger Creek, Cypress Hills, Eastend, Estuary, Fork of Red Deer and Saskatchewan Rivers, Governlock, South Saskatchewan River north of Prelate, Rosefield, southwest of Metador, extreme southwestern Saskatchewan in Township 1, Range 30 (PC: L. M. Klauber).

Crotalus viridis oreganus Holbrook
NORTHERN PACIFIC RATTLESNAKE

Range in Canada: Interior dry region of southern British Columbia north to Lillooet, Ashcroft, and Lac du Bois (almost to 51° Latitude), east to Cascade, and west to the Fraser River. Map 77.

Canadian locality records: Kamloops Dist., Ashcroft (PMBC, PC: G. C. Carl). Glenemma (PC: L. M. Klauber). Lac du Bois (Carl 1951, p. 42). Lytton (Cowan 1937, p. K22). Lillooet Dist., Lillooet (Carl 1951, p. 42). Osoyoos Dist., Ewings Landing, Kelowna (PC: L. M. Klauber). Similkameen Dist., Cascade (Carl 1951, p. 43). Grand Forks, Naramata (PC: L. M. Klauber). Osoyoos (PMBC, PC: G. C. Carl). Rock Creek (PC: L. M. Klauber). Yale Dist., North Bend (PC: L. M. Klauber).

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